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PSYCHOLOGY

LECTURES
TUTORIALS AND STUDY GUIDES

(for the 1-4 years full time students of all specialties)

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The main aim of this manual is to help students to understand, generalize theoretical material in psychology and to provide practical training.

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CONTENT

Lectures..... 5
Introducing Psychology..... 5
Subfields and Methods of Psychology..... 10
Attention..... 15
Sensation and Perception..... 20
Memory..... 24
Thinking and Language..... 29
Intelligence and Motivation..... 33
Emotions..... 38
Personality..... 42
References..... 47
Tutorials and Study Guides..... 50
Introductory Concepts in Psychology. Some Branches of Psychology. Research Methods in Psychology..... 50
Sensation. Perception. Attention..... 59
Memory..... 65
Thinking. Language. Intelligence..... 67
Motivation and Emotion..... 69
Psychology of Personality..... 75
Glossary..... 85
References..... 86

FOREWORD

Psychology is increasingly getting importance in human lives. Major problems of our time as poverty, environmental and ecological crises and many other social and economic problems have important psychological implications. Today, no aspects of human life can be out of the practical contributions of psychology.

Psychologists focus on the prevention of the psychological problems. To achieve this, the study of human behavior and how human beings interact with their environment and how they develop physically, socially, emotionally and mentally is important.

This teaching materiel is prepared for the 1-4years full-time students who study the discipline “Psychology” and provides them basic understanding of human behavior in general.

One of the most fundamental integrative principles of the discipline of psychology is its focus on behavior and mental processes and yet that is often not made clear to students. Affect, cognition, attention, memory, motivation are critical and essential and they are frequently best understood and made relevant through their links with behavior.

Psychology matters help students to understand behavior and this teaching material designed to facilitate these learning outcomes.

LECTURES

Introducing Psychology

1. Philosophy and Psychology

2. Subject Matter of Psychology

3. Historical Schools of Psychology

Basic terms: *psychology, behavior, stimulus, response, structuralism, functionalism, psychoanalysis, behaviorism, humanistic, gestalt, existentialism, cognitivism.*

Philosophy and Psychology

The word ***"Psychology"*** comes from the Greek words "psyche" meaning life, soul or spirit and 'logos" meaning study or explanation.

The first psychologists were philosophers. The earliest psychologists that we know about are the Greek philosophers Plato(428-347 BC) and Aristotle(384-322 BC).These philosophers asked many of the same questions that today's psychologists ask. For instance, they questioned the distinction between nature and nurture and the existence of free will. Plato argued on the nature side, believing that certain kinds of knowledge are innate or inborn, whereas Aristotle was more on the nurture side, believing that each child is born as 'empty slate', in Latin 'tabula rasa' and knowledge is primarily acquired through learning and experience.

The study of psychology in a philosophical context dates back to the ancient civilizations of Egypt, Greece, China, India and Persia. As early as the 4th century BC Greek physician Hippocrates (460-370 BC) theorized that mental disorders were of a physical rather than divine nature.

Psychology broke away from philosophy and emerged as separate discipline over 100 years ago. European philosophers continued to ask fundamental questions during Renaissance. For instance, the French philosopher Rene Descartes (1596-1650) also considered the issue of the will, arguing that the mind controls the body through the pineal gland in the brain. This idea was late proved incorrect. Descartes also believed in the existence of innate natural abilities. A scientist as well as a philosopher Descartes dissected animals and was among the first to understand that the nerves controlled the muscles. He also addressed the relationships between mind (the mental aspects of life) and body (the physical aspects of life). Descartes believed in principle of dualism: that the mind is fundamentally different from the mechanical body.

Others European philosophers including Thomas Hobbes (1588-1679), John Locke (1632-1704) and Jean-Jacques Rousseal (1712-1778) also weighed in on these issues. The fundamental problem that these philosophers faced was that they had few methods for setting their claims. Most philosophers didn't conduct any research on these questions, in part because they didn't yet know how to do it, and in part because they weren't sure it was even possible to objectively study human experience.

But dramatic changes came during the 1800's with the help of the first two research psychologists: the German psychologist Wilhelm Wundt (1832-1920), who

developed a psychology laboratory in Leipzig, Germany, and the American psychologist William James (1842-1910), who founded a psychology laboratory at Harvard University.

Subject Matter of Psychology

Many people have direct knowledge about psychology because they have visited psychologists, for instance, school counselors, family therapists, religious, marriage and bereavement counselors.

Most psychologists work in research laboratories, hospitals and other fields setting where they study the behavior of human and animals. For instance, psychologists study such diverse topics as anxiety in children, the interpretation of dreams, the effects of caffeine on thinking, how birds recognize each other, how people of different cultures react differently in negotiations and the factors that lead people to engage in terrorism. Other psychologists study such topics as alcohol and drug addiction, memory, emotion, hypnosis, love, what makes people aggressive or helpful.

Psychology is a body of knowledge that can be applied to help solve a variety of human problems.

Psychology is an academic and applied discipline that involves the scientific study of mental functions and behaviors.

Psychology has the immediate goal of understanding individuals and groups through both establishing general principles and researching specific cases, and through several accounts it ultimately aims to benefit society. ***A major goal of Psychology is to predict behavior by understanding its causes***. Making predictions is difficult because people vary and respond differently in different situations. In this field, a professional practitioner or researcher is described a psychologist and can be classified as a social, behavioral, or cognitive scientist.

Psychologists explore concepts such as perception, cognition, attention, emotion, phenomenology, motivation, brain functioning, personality, behavior, and interpersonal relationships.

Psychologists of diverse stripes also consider the unconscious mind. ***Consciousness is our subjective awareness of ourselves and our environment***. Consciousness and thus the mind exists in the brain, not separate from it. The experience of consciousness is fundamental to human nature. Consciousness is the result of the activity of the many neural connections in the brain. Our experience of consciousness is functional because we use it to guide and control our behavior and to think logically about problems.

Psychologists employ empirical methods to infer causal and correlation relationships flanked by psychosocial variables. In addition, or in opposition, to employing empirical and deductive methods, some—especially clinical and counseling psychologists—at times rely upon symbolic interpretation and other inductive techniques. Psychology has been described as a "hub science", with psychological findings linking to research and perspectives from the social sciences, natural sciences, medicine, and the humanities, such as philosophy.

While psychological knowledge is often applied to the assessment and treatment of mental health problems, it is also directed towards understanding and

solving problems in several different spheres of human activity. The majority of psychologists are involved in some kind of therapeutic role, practicing in clinical, counseling, or school settings. Several do scientific research on a wide range of topics related to mental processes and behavior, and typically work in university psychology departments or teach in other academic settings (e.g., medical schools, hospitals). Some are employed in industrial and organizational settings, or in other areas such as human development and aging, sports, health, and the media, as well as in forensic investigation and other characteristics of law.

Originally psychology was defined as the study of soul or spirit. But late on philosophers defined psyche as mind. Because of this psychology began to be regarded as the study of individual's mind or mental processes. Through time this late definition of psychology was given up because the mind as an object does not exist: it cannot be observed and measured objectively.

Behavior is the all types of human activities. **Examples:**

- -motor activities: walking, jumping, driving, speaking;
- -cognitive activities: perceiving, remembering, thinking, reasoning;
- -emotional activities: feeling happy, sad, angry, afraid.

Behavior is both mental and bodily. Mental behavior includes all types of mental experiences or processes. Bodily behavior refers to the movement and actions of the body in response to the situation.

Behavior is the reaction of an individual to a particular environment. The environment exerts influence on individuals. That influence is called ***stimulus.*** The stimulus in turn arouses an activity from the individual and this is called ***the response.***

Example. A man may be admitted to a hospital for a surgical operation – stimulus. The man feels frightened and worries because he is uncertain what may happen next – response.

The human behavior consists of physical responses, feelings, emotions, tensions and all intellectual responses, perceiving, thinking, recalling and reasoning. Behavior shows growth and development from the early years of infancy to maturity and old age. Psychology as a science studies how behavior grows and develops from infancy to old age and also studies behavioral differences between people.

Historical Schools of Psychology

In the first decades of the twentieth century psychologists hold quite different views concerning the nature of mind and the best methods to study mind. Psychology evolved into diverse schools of thought. Fundamental question was –what should be study in psychology? Should psychology be the study of mind, should it study behavior or should both mind and behavior be incorporated?

Structuralism

German physician Wilhelm Wundt is credited with introducing psychological detection into a laboratory setting. Recognized as the "father of experimental psychology", he founded the first psychological laboratory at Leipzig University in 1879. Wundt focused on breaking down mental processes into the most basic components, motivated in part through an analogy to recent advances in chemistry, and its successful investigation of the elements and structure of material.

Functionalism

Functionalism formed as a reaction to the theories of the Structuralism School of thought and was heavily influenced through the work of the American philosopher, scientist, and psychologist William James. James felt that psychology should have practical value, and that psychologists should find out how the mind can function to a person's benefit. In his book Principles of Psychology published in 1890, he laid the foundations for several of the questions that psychologists would explore for years to come.

Other major functionalist thinkers incorporated John Dewey and Harvey Carr. Other 19th-century contributors to the field contain the German psychologist Hermann Ebbinghaus, a pioneer in the experimental study of memory and the Russian-Soviet physiologist Ivan Pavlov, who exposed in dogs a learning process that was later termed "classical conditioning" and applied to human beings.

Starting in the 1950s, the experimental techniques urbanized through Wundt, James, Ebbinghaus, and others re-appeared as experimental psychology became increasingly cognitivist—concerned with information and its processing—and, eventually, constituted a part of the wider cognitive science. In its early years, this development was seen as a revolution.

Psychoanalysis

From the 1890s until his death in 1939, the Austrian physician Sigmund Freud urbanized psychoanalysis, which comprised a method of investigating the mind and interpreting experience; a systematized set of theories in relation to the human behavior; and a form of psychotherapy to treat psychological or emotional distress, especially unconscious conflict. Freud's psychoanalytic theory was largely based on interpretive methods, introspection, and clinical observations. It became very well recognized, largely because it tackled subjects such as sexuality, repression, and the unconscious mind as general characteristics of psychological development. Freud helped to pioneer the method of free association and a therapeutic interest in dream interpretation. Throughout the 20th century, psychoanalysis evolved into diverse schools of thought, most of which may be classed as Neo-Freudian.

Psychoanalytic theory and therapy were criticized through psychologists such as Hans Eysenck, and through philosophers including Karl Popper. Popper, a philosopher of science, argued that psychoanalysis had been misrepresented as a scientific discipline.

Behaviorism

In the United States, behaviorism became the dominant school of thought throughout the 1950s. Behaviorism is a discipline that was established in the early 20th century through John B. Watson and extended through Edward Thorndike, Clark L. Hull, Edward C. Tolman, and later B.F. Skinner. Theories of learning accentuated the methods in which people might be predisposed, or conditioned, through their environments to behave in certain methods.

Classical conditioning was an early behaviorist model. It posited that behavioral tendencies are determined through immediate associations flanked by several environmental stimuli and the degree of pleasure or pain that follows. Behavioral patterns, then, were understood to consist of organisms' conditioned

responses to the stimuli in their environment. The stimuli were held to exert influence in proportion to their prior repetition or to the previous intensity of their associated pain or pleasure. Much research consisted of laboratory based animal experimentation, which was increasing in popularity as physiology grew more sophisticated.

Skinner whispered that the contents of the mind were not open to scientific scrutiny and that scientific psychology should emphasize the study of observable behavior. He focused on behavior – environment relations and analyzed overt and covert (i.e., private) behavior as a function of the organism interacting with its environment. Behaviorists usually rejected explanations such as "mind" or "consciousness."

Humanistic

Humanistic psychology was urbanized in the 1950. Humanism focused on fundamentally and uniquely human issues, such as individual free will, personal growth, self-actualization, self-identity, death, aloneness, freedom, and meaning.

Some of the founders of the humanistic school of thought were American psychologists Abraham Maslow, who formulated a hierarchy of human needs, and Carl Rogers, who created and urbanized client-centered therapy.

Gestalt

Wolfgang Kohler, Max Wertheimer and Kurt Koffka co-founded the school of Gestalt psychology. This approach is based upon the thought that individuals experience things as unified wholes. This approach to psychology began in Germany and Austria throughout the late 19th century in response to the molecular approach of structuralism. Rather than breaking down thoughts and behavior to their smallest element, the Gestalt position maintains that the whole of experience is significant, and the whole is different than the sum of its parts.

Existentialism

In the 1950s and 1960s American psychologist Rollo May pioneered an existential branch of psychology, which incorporated existential psychotherapy, a method of therapy that operates on the belief that inner conflict within a person is due to that individual's confrontation with the givens of subsistence.

Existential psychologists differed from others often classified as humanistic in their comparatively neutral view of human nature and in their relatively positive assessment of anxiety. Existential psychologists accentuated the humanistic themes of death, free will, and meaning, suggesting that meaning can be shaped through myths, or narrative patterns, and that it can be encouraged through an acceptance of the free will requisite to an authentic, albeit often anxious, regard for death and other future prospects.

Cognitivism

Cognitive psychology is the branch of psychology that studies mental processes including problem solving, perception, memory, and learning. As part of the superior field of cognitive science, this branch of psychology is related to other disciplines including neuroscience, philosophy and linguistics.

Noam Chomsky helped to launch a "cognitive revolution" in psychology when he criticized the behaviorists' notions of "incentive", "response", and "reinforcement".

Chomsky argued that such ideas—which Skinner had borrowed from animal experiments in the laboratory—could be applied to intricate human behavior, most notably language acquisition, in only a superficial and vague manner. The postulation that humans are born with the instinct or "innate facility" for acquiring language posed a challenge to the behaviorist position that all behavior, including language, is contingent upon learning and reinforcement.

Review questions

1. What is psychology? Explain the meaning of this term.
2. What is the subject matter in psychology?
3. Explain the meaning of the term behavior.
4. Give the description of the different psychological schools of thought.

Subfields and Methods of Psychology

1. Subfields of Psychology.

2. Research Methods in Psychology.

Basic terms: *psychological method, biological psychology, clinical psychology, cognitive psychology, comparative psychology, qualitative and quantitative methods.*

Subfields of Psychology

Psychology encompasses a vast domain and comprises several different approaches to the study of mental processes and behavior.

Biological

Biological psychology or behavioral neuroscience is the study of the biological substrates of behavior and mental processes. There are different specialties within behavioral neuroscience. For instance, physiological psychologists use animal models, typically rats, to study the neural, genetic, and cellular mechanisms that underlie specific behaviors such as learning and memory and fear responses. Cognitive neuroscientists investigate the neural correlates of psychological processes in humans using neural imaging tools, and neuro-psychologists conduct psychological assessments to determine, for instance, specific characteristics and extent of cognitive deficit caused through brain damage or disease.

Clinical

Clinical psychology comprises the study and application of psychology for the purpose of understanding, preventing, and relieving psychologically based distress or dysfunction and to promote subjective well-being and personal development. Central to its practice are psychological assessment and psychotherapy, although clinical psychologists may also engage in research, teaching, consultation, forensic testimony, and program development and administration. Some clinical psychologists may focus on the clinical management of patients with brain injury—this area is recognized as clinical neuropsychology. In several countries, clinical psychology is a regulated mental health profession.

Cognitive

Cognitive psychology studies cognition, the mental processes underlying mental activity. Perception, attention, reasoning, thinking, problem solving, memory, learning, language, and emotion are areas of research. Classical cognitive psychology

is associated with a school of thought recognized as cognitivism, whose adherents argue for an information processing model of mental function, informed through functionalism and experimental psychology.

Comparative psychology refers to the scientific study of the behavior and mental processes of non-human animals, especially as these relate to the phylogenetic history, adaptive significance, and development of behavior. Research in this area addresses several different issues, uses several different methods, and explores the behavior of several different species, from insects to primates. It is closely related to other disciplines that study animal behavior such as ethology. Research in comparative psychology sometimes appears to shed light on human behavior, but some attempts to connect the two have been quite controversial. Animal models are often used to study neural processes related to human behavior.

Developmental

Mainly focusing on the development of the human mind through the life span, developmental psychology seeks to understand how people come to perceive, understand, and act within the world and how these processes change as they age. This may focus on cognitive, affective, moral, social, or neural development. Researchers who study children use a number of unique research methods to create observations in natural settings or to engage them in experimental tasks. Such tasks often resemble specially intended games and activities that are both enjoyable for the child and scientifically useful, and researchers have even devised clever methods to study the mental processes of infants. In addition to studying children, developmental psychologists also study aging and processes throughout the life span, especially at other times of rapid change (such as adolescence and old age). Developmental psychologists draw on the full range of psychological theories to inform their research.

Educational and School

Educational psychology is the study of how humans learn in educational settings, the effectiveness of educational interventions, the psychology of teaching, and the social psychology of schools as organizations. The work of child psychologists such as Lev Vygotsky, Jean Piaget, Bernard Luskin, and Jerome Bruner has been influential in creating teaching methods and educational practices.

School psychology combines principles from educational psychology and clinical psychology to understand and treat students with learning disabilities; to foster the intellectual growth of gifted students; to facilitate prosocial behaviors in adolescents; and otherwise to promote safe, supportive, and effective learning environments. School psychologists are trained in educational and behavioral assessment, intervention, prevention, and consultation, and several have extensive training in research.

Evolutionary

Evolutionary psychology examines psychological traits—such as memory, perception, or language—from a modern evolutionary perspective. It seeks to identify which human psychological traits are evolved adaptations, that is, the functional products of natural selection or sexual selection. Evolutionary psychologists suggest that psychological adaptations evolved to solve recurrent problems in human

ancestral environments. Through focusing on the evolution of psychological traits and their adaptive functions, it offers complementary explanations for the mostly proximate or developmental explanations urbanized through other areas of psychology

Industrial–Organizational

Industrial and organizational psychology (I–O) applies psychological concepts and methods to optimize human potential in the workplace. Personnel psychology, a subfield of I–O psychology, applies the methods and principles of psychology in selecting and evaluating workers. I–O psychology's other subfield, organizational psychology, examines the effects of work environments and management styles on worker motivation, job satisfaction, and productivity.

Personality

Personality psychology is concerned with enduring patterns of behavior, thought, and emotion—commonly referred to as personality—in individuals. Theories of personality vary crossways different psychological schools and orientations. They carry different assumptions in relation to the issues as the role of the unconscious and the importance of childhood experience.

According to Freud, personality is based on the dynamic interactions of the id, ego, and super-ego. The number of proposed traits has varied widely. An early model, proposed through Hans Eysenck, suggested that there are three traits which comprise human personality: extraversion–introversion, neuroticism, and psychoticism. Raymond Cattell proposed a theory of 16 personality factors.

Social

Social psychology is the study of how humans think in relation to the each other and how they relate to each other. Social psychologists study such topics as the influence of others on an individual's behavior and the formation of beliefs, attitudes, and stereotypes in relation to the other people. Social cognition fuses elements of social and cognitive psychology in order to understand how people process, keeps in mind, or distort social information. The study of group dynamics reveals information in relation to the nature and potential optimization of leadership, communication, and other phenomena that emerge at least at the micro social level.

The study of human society is so a potentially valuable source of information in relation to the causes of psychiatric disorder. Some of the sociological concepts applied to psychiatric disorders are the social role, sick role, social class, life event, culture, migration, social, and total institution.

Positive

Positive psychology derives from Maslow's humanistic psychology. Positive psychology is a discipline that utilizes proof based scientific methods to study factors that contribute to human happiness and strength. Different from clinical psychology, positive psychology is concerned with improving the mental well-being of healthy clients. Positive psychological interventions now have received tentative support for their beneficial effects on clients.

Research Methods in Psychology

Psychology tends to be eclectic, drawing on knowledge from other fields to help explain and understand psychological phenomena. Additionally, psychologists

create extensive use of the three manners of inference that were recognized through C. S. Peirce: deduction, induction, and abduction (hypothesis generation). While often employing deductive–nomological reasoning, they also rely on inductive reasoning to generate explanations. Psychologists may conduct basic research aiming for further understanding in a scrupulous area of interest in psychology, or conduct applied research to solve problems in the clinic, workplace or other areas. Masters level clinical programs aim to train students in both research methods and proof – based practice. Professional associations have established guidelines for ethics, training, research methodology and professional practice. In addition, depending on the country, state or region, psychological services and the title "psychologist" may be governed through statute and psychologists who offer services to the public are usually required to be licensed.

Qualitative and Quantitative Research

Research in most areas of psychology is mannered in accord with the standards of the scientific method. Psychological researchers seek the emergence of theoretically motivating categories and hypotheses from data, using qualitative or quantitative methods (or both).

Qualitative psychological research methods contain interviews, first-hand observation, and participant observation. Creswell (2003) identifies five main possibilities for qualitative research, including narrative, phenomenology, ethnography, case study, and grounded theory.

Quantitative psychological research lends itself to the statistical testing of hypotheses. Quantitatively oriented research designs contain the experiment, quasi-experiment, cross-sectional study, case-control study, and longitudinal study.

Controlled Experiments

Experimental psychological research is mannered in a laboratory under controlled circumstances. This method of research relies on the application of the scientific method to understand behavior. Experimenters use many types of measurements, including rate of response, reaction time, and several psychometric measurements. Experiments are intended to test specific hypotheses (deductive approach) or evaluate functional relationships (inductive approach). A true experiment with random allocation of subjects to circumstances allows researchers to infer causal relationships flanked by different characteristics of behavior and the environment. In an experiment, one or more variables of interest are controlled through the experimenter (independent variable) and another variable is measured in response to different circumstances (dependent variable). Experiments are one of the primary research methods in several areas of psychology, particularly cognitive/psychonomics, mathematical psychology, psychophysiology and biological psychology/cognitive neuroscience.

Experiments on humans have been put under some controls, namely informed and voluntary consent.

Survey Questionnaires

Statistical surveys are used in psychology for measuring attitudes and traits, monitoring changes in mood, checking the validity of experimental manipulations, and for a wide diversity of other psychological topics. Most commonly, psychologists

use paper-and-pencil surveys. Though, surveys are also mannered over the phone or through e-mail. Increasingly, web-based surveys are being used in research for its convenience and also to get a wide range of participants. Similar methodology is also used in applied setting, such as clinical assessment and personnel assessment.

Longitudinal Studies

Longitudinal studies are often used in psychology to study developmental trends crossways the life span, and in sociology to study life events throughout lifetimes or generations. The cause for this is that unlike cross-sectional studies, longitudinal studies track the same people, and so the differences observed in those people are less likely to be the result of cultural differences crossways generations. Because of this benefit, longitudinal studies create observing changes more accurate and they are applied in several other fields. Because most longitudinal studies are observational, in the sense that they observe the state of the world without manipulating it, it has been argued that they may have less power to detect causal relationships than do experiments.

Observation in Natural Settings

Just as Jane Goodall studied chimpanzee social and family life through careful observation of chimpanzee behavior in the field, psychologists conduct observational studies of ongoing human social, professional, and family life. Sometimes the participants are aware they are being observed, and other times the participants do not know they are being observed. Strict ethical guidelines necessity is followed when covert observation is being accepted out.

Neuropsychological Methods

Neuropsychological research methods are employed in studies that examine the relation of mental activity and behavior to the structure and function of the brain. These methods contain testing functional neuroimaging, and transcranial magnetic stimulation.

Computational Modeling

Computational modeling is a tool often used in mathematical psychology and cognitive psychology to simulate a scrupulous behavior using a computer. This method has many advantages. Since modern computers process information very quickly, several simulations can be run in a short time, allowing for a great deal of statistical power. Modeling also allows psychologists to visualize hypotheses in relation to the functional organization of mental events that couldn't be directly observed in a human.

Animal Studies

In the 1890s, Russian physiologist Ivan Pavlov famously used dogs to demonstrate classical conditioning. Non-human primates, cats, dogs, pigeons, rats, and other rodents are often used in psychological experiments. Ideally, controlled experiments introduce only one independent variable at a time, in order to ascertain its unique effects upon dependent variables. These circumstances are approximated best in laboratory settings. In contrast, human environments and genetic backgrounds vary so widely, and depend upon so several factors, that it is hard to control significant variables for human subjects. Of course, there are pitfalls in generalizing findings from animal studies to humans through animal models.

Despite of differences in their interests, areas of study and approaches all psychologists have one thing in common – they rely on scientific methods.

Review questions.

1. Analyze the subfields of psychology.
2. Describe the methods of psychology.
3. What are the differences between qualitative and quantitative studies?

Attention

1. The Definition of Attention, Main Functions and Characteristics.

2. Factors That Affect Attention

3. Kinds of Attention

4. The Basic Features of Attention

Basic terms: *attention, voluntary, involuntary habitual attention, division, fluctuation and distraction of attention.*

The Definition of Attention, Main Functions and Characteristics

Attention is a selective mental process through which the individual brings the selected incentive in his/her focus of consciousness. Ordinarily we speak of giving attention to objects, of concentrating attention some object or shifting attention from one object to another. This may provide the impression that attention is some faculty or power that we can use at will. But it is better to speak of attending the act, process or function of attending rather than any power.

Psychology studies mental processes and activities but it is hard to do this without attending to them. Attending to an object is to bring that object to consciousness. To perceive an object is to bring that object to consciousness. To perceive an object, to think in relation to it, to solve some problem in relation to it, to keep in mind it and the like is not possible without attending to it. Through attending to any thing we bring it within the realm of consciousness. Attention is the heart of the conscious process and is basic to all mental activity and behavior. Attention in a method precedes all mental activity.

The field of attention is narrower than the filed of consciousness or awareness. It is concentrated awareness of a selected aspect of our environment. We are said to be attending to an object when our sense activity is focused on any scrupulous incentive. Such stimuli standout more prominently from the rest of the environment and are more clearly perceived.

Attention is not always fixed. Shifting is the nature of attention. Attention is always fluctuating and shifting, our interest and needs are changing and they affect the process of attending, and then some outside objects through their force and intensity compel attention.

Attention is not just looking on. It is an active process, involving provide and - take with the environment. When we attend to anything we are inclined to do something in relation to it, is it simply to keep it before our mind or to remove it from consciousness.

Attention is a process of adjustment. Through attending the individual adjust himself inner needs or to outer stimuli.

It is often of great importance to the individual whether he attends to an object cautiously or not. Accidents are the result of the failure or lack of careful attention to small detail.

Through attending sensory discrimination is improved. We are exposed to a large number of stimuli but attention separates its object from the rest and enables us to observe it cautiously. This focused attention create fine distinctions in perceive things which otherwise would have passed unnoticed. Attention creates things clearer and more separate.

Attention also directs our energies. We respond to some and ignore others. To be attentive is to concentrate one‘s efforts in a certain direction so that things and ideas we attend to are relevant to our needs and purposes.

Attention increases efficiency. It helps us to get ready to meet any situation. Attention is a preparatory adjustment and inattentive people are seldom efficient and successful.

Lastly, attention helps us to keep in mind experiences more accurately and fully. Those things to which we attend very cautiously are recalled with vividness and in detail.

It is already mentioned that attention is an active process. It is selective, purposeful, fluctuating. Within a span of attention we concentrate our attention. The attended object is clearer than other objects. In the process of attention we create certain bodily movements through method of adjustment. While attending we prepare our body suitably for action. The changed body posture enables the sense-organs to function best. It also helps to concentrate. There is also some tension in the body muscles if the body is poised for action. The mind is also very active to attend and respond to the attended object.

Characteristics of Attention*:* mental process; selective process; motivational process; always shifting; increases the clearness of the stimuli (figure and background); attention goes before perception and reaction; purposive; dynamic; exploratory; adjective in nature (for body and tension reduction).

Factors That Affect Attention

Why people attend some objects and ignore others? To answer this psychologists have laid down some laws or circumstances which decides what to attend and what not to. Some psychologists call them as determinants of attention and classify them as «subjective» (internal) and «objective» (external).

Subjective Determinants of Attention

It is a common experience that some person attends and other ignores to any object. This is because of subjective or personal factor. In several situations individual determines what object to attend and not attend.

The subjective determinants in attention contain the following: aim/goal, attitudes, basic needs (food deprivation), curiosity, education and training, emotion, habit or practice, individual‘s internal desire and needs, interest, meaning and understanding (traditional doctors and treatment), mental set, mood, past experiences, purpose and goal, social motives, temperament (religious, musical, cool nature, etc.), training (cloth makers, army).

Objective Determinants of Attention are concerned with the environmental factors which contain the objects and its qualities and intensities. One of the significant external or objective circumstances or determinants of attention is change. Other things being equal, we are approximately always more likely to notice a changing incentive than an unchanging one. The suddenness of the change attracts our attention.

Another factor of advantage is holding and securing attention is the intensity of the incentive. A strong or intense incentive will attract attention more readily than a weak one. A loud noise, bright color or light draws attention. A bright color or light will draw attention while a more subdued one would not.

Repetition is another such condition that draws attention. Objects presented again and again are sure to secure attention.

Newness or novelty and contrast also attract attention. Objects different from the type we are accustomed to see are readily noticed. We do not pay any attention to common or familiar objects in the context. Any newness or contrast in the environment can draw our attention. Other external determinants are:

-nature of incentive: all related to the sense organs;

-intensity of the incentive: highly intense incentive is more attentive than others;

-size of the incentive: more than average is more attentive;

-position of the incentive: figure and background, etc.;

-isolation of the incentive;

-duration of the incentive: the longer the attendance the longer the influence to the sense organs – advertisement;

-change of the incentive: sudden change in the incentive, no sound etc.;

-novelty of the incentive: in the environment attracts attention;

-contrast of the incentive: female among the male;

-movement of the incentive;

-strangeness or secrecy of the incentive.

Kinds of Attention

Sometimes, certain incentive force becomes so potential that our attention is drawn towards that without any conscious effort or intention. For such attentions, we are usually not mentally set but our attention is abruptly drawn towards these stimuli. For instance, a pistol shot, an intense flash of light, alarming siren sound, sudden cry of a child etc. have a force in them, to draw our attention without any deliberate effort.

Most often we attend to those objects more readily for which we have a mental set of habitual nature. For instance, a young boy's readiness to notice a beautiful girl and a girl's readiness to notice a handsome boy, our readiness to perceive good in the actions of our friends and evils in the actions of enemies, showing recurring interest in scrupulous food and drink, etc. are the instance of habitual sort of readiness, under the influence of which our attention is automatically drawn. A chain smoker is seen suddenly drawn towards an advertisement of cigarette.

Voluntary Attention

Voluntary Attention is that which is willingly directed to an object. An analysis reveals elements of desire and interest, aim and social adjustment in voluntary attention. Voluntary attention is on intentional nature. Whenever we intentionaly or diliberatly look or listen the process of attention is voluntary. For instance, if some one said ``Look here, listen what is being said`` and if we respond to this comands accordingly we are attending voluntary. In the foregoing instance the student directs his attention because of some scrupulous aim like the passing of an examination, acquiring knowledge or one of a number of other goals. He takes interest in studying. Like other activities attention is just another form of adjustment. The difference flanked by voluntary and involuntary attention is that while the former is secured the motivational elements in the individual, the motivating elements exist outside in the latter case.

Involuntary Attention

Involuntary Attention is not only directed through the individual's desire or motivation, it may even be against it. It usually hinders the process of goal seeking. If, for instance, your attention is attracted through a song while you are studying, your studies will suffer. Social adjustment is similarly obstructed through involuntary attention. The proper adjustment of a student can be the outcome, only of an undisturbed attention to his studies. On account of the fact that one can pay attention to only one thing at a time, the student will not be able to attend to his studies if his attention continually wanders in other directions. Obviously, a person forgets his goal owing to involuntary attention and cannot effect his adjustment.

Habitual Attention

Besides the two types mentioned above, there is third type, the habitual or non-voluntary attention. The difference flanked by non-voluntary and involuntary attention is that the former type is the result of some habit or practice and the motivation is in the individual but the cause for the attention in the latter type is in the object. ***Habitual Attention is different from voluntary attention because habitual attention has no need for a will as the latter does.*** But sustained application of voluntary attention converts it into habitual attention. For instance, a student pays voluntary attention to study in the beginning but it is slowly transformed into habitual attention towards reading and writing. Therefore the position of habitual attention is in flanked by voluntary and involuntary types of attention.

Actually the above distinctions in attention are not very clear. The difference flanked by voluntary and involuntary attention is often only just discernible. No attention can be said to belong to any one of the three types exclusively. A scholar has to exercise his will in spite of his involuntary attention in reading. There is an unconscious desire to pay attention to an object which involuntarily draws your attention. In this method the difference in the types of attention is small though it is of great importance form the psychological viewpoint.

The Basic Features of Attention

Division of Attention

Sometimes we claim doing two things simultaneously. For instance, one may copy from a page and also listen to radio. Whether under such situations there is

division of attention? Studies done on this aspect have revealed that if one of the two tasks is of autonomic nature, it is possible to attend both the tasks simultaneously with approximately equal efficiency. Autonomic tasks usually require no conscious effort of attending. Only one of the tasks usually requires conscious effort to attend. For instance, a student can simultaneously read and listen to radio; a typist can work on type machine and also listen to a story. In such cases one of the tasks becomes so autonomic that they require attention only in intervals and so all attention can be directed to another task. Though, when both tasks require conscious efforts to attend, attention is divided flanked by them and the tasks cannot be performed as efficiently as those which are given attention separately. Therefore, ***Attention has the attribute of being divided when two stimuli simultaneously require focus***.

Attention Span

Of all the incentive approximately us, we attend to only a few. Attention divides our field of conscious experience in to focus and margin. The objects, things or events that exist in the focus stand out as separate and clear. Rest are in the margin and we are either unaware of them or if at all, provide a very dim, and ambiguous apprehension.

What number or amount of objects can simultaneously exist in the focus? This question has been subjected to experimental investigation. The general opinion is that in a single act of attention, one can attend to only one object. Though, this statement need to be further analyzed. Objects may be simple or intricate. For instance, you observe a house as a single unit or object. But this house is a composite of many objects-windows, doors, number of floors, etc. each one is a unit in itself. So, the singleness of the object varies according to purpose in hand.

Experiments show that number of objects one can hold in his focus of attention is usually limited. This is referred to span of attention - that is the number of stimuli attended to in a single act of attention. ***Span of Attention is the number of objects that stand out distinctively clear in one single moment of observation***.

Fluctuation of Attention

Fluctuation of Attention is the length of time one can attend continuously to a single object. Attention is not steady or concentrated throughout. At one time the object comes in our focus, at another time, it goes out from focus. Closely related to fluctuation is shift of attention. In shift of attention our attention passes from one incentive to another or from one part of an intricate incentive to another part. The reversible figure is an instance where attention shifts from one figure to another.

Attention is a mobile or dynamic activity, and it is hard to attend to one a scrupulous object for any great length of time. ***When Attention moves from one object to another, it is described the shifting of attention. But even when the attention persists with one object, it grows more or less in degree. This is described fluctuation of attention***.

The cause of fluctuation in attention has attributed to the temporary slackness in the mental activities and sense organs. Some psychologists found the fluctuation even when the muscles had been numbed. The fluctuation is then whispered to be due to the changes in adjustment or version. Though nothing can be said definitely in

relation to the this matter but still, the importance of the sense, mind, psychological state and environmental factors in fluctuation of attention is undeniable.

Distraction of Attention

Distraction means the dividing of Attention or some interference in attention. The object which causes the distraction is described the distracter. In fact, broken attention is not the absence of attention because the distracter is associated with the activity, often though not always, and it no longer interferes with the activity. Therefore, the notion that distraction invariably hinders work is misleading. Experiments mannered through Morgan indicated that at first distraction caused a drop in the speed of typewriting but constant pursuit of the work in the disturbed condition increased this speed, and it again dropped when distraction was removed. But distraction, in some experiments through Weber caused harm. Though it cannot be definitely said that distraction increases the speed of the work, it is possible, to say with some degree of confidence, that a decrease in speed due to distraction is not inevitable. Actually the effect of a distraction on some work depends in no small measure upon the capability, interest, practice, ability and mental set of the worker. If the distraction is favorable the speed will be increased but if it is unsuitable the speed will drop.

Review questions

1. Explain the functions of attention.
2. Describe the differences between voluntary, involuntary and habitual attention.
3. Evaluate the basic features of attention.

Sensation and Perception

1. Kinds of Sensation. Perceptual Constancies

2. Factors That Affect Perception

3. Directions of Perception

4. Theories of Perceptual Development

Basic terms: *sensation, perception, perceptual constancies, directions of perception, theories of differentiation and affordances.*

Kinds of Sensation. Perceptual Constancies

Sensation and perception are fundamental topic. ***Sensation is a process by which an organism's sense organs respond to a stimulus***. The physical senses are: sight, touch, taste, smell, and hearing.

The study of sensation and perception is exceedingly important for our everyday lives because the knowledge generated by psychologists is used in many ways to help so many people. Psychologists work closely with mechanical and electrical engineers, with experts in defense and military contractors, and with clinical, health and sports psychologists to help them apply this knowledge to their everyday practices. The research is used to help us understand and better prepare people to cope with such diverse events as driving cars, flying planes, creating robots and managing pain.

Sensation is the process by which an organism's sense organs respond to a stimulus. It is the process whereby stimulation of receptor cells in the eyes, ears, nose, mouth and surface of the skin sends nerve impulses to the brain. After reaching the brain they are registered as a touch, a sound, a taste, a smell and a splash of color. Hence sensation can be thought as an organism's first encounter with sensory stimuli. It is the sequence of operations by which physical energy (for example, sound waves, light) is transformed into patterns of neural impulse that give rise to sensory experience.

Sight. Perceptual Constancies

We see an object as we have image on our retina. When the object is closer we have full image of it on the retina. But when it moves distant, the image becomes different yet we see the object in the same shape, size, color and brightness. We see a white, bright, big and rectangular table in our front; we have an image of it on the retina. We move it further when only we can see just vague image of it. What happens then? Yet we perceive it as a table of the same size, shape, color and brightness. ***The tendency of the individual to perceive characteristics of the world as unchanging despite changes in the sensory input we receive from them is the phenomenon recognized as perceptual constancy***.

For instance. You are sitting in a chair in your living room. A man walks into your room, moves over to a table through the window, picks up a newspaper, and then goes crossways the room to sit down and read. What are the successive patterns of visual stimulation that register on your retina as you watch this scene? Every time the man moves closer to you, the image on the retina gets superior. In fact, if the person moves from 20 feet absent to 10 feet absent, the height of the image on your retina doubles. The opposite occurs if the person moves absent from you. In addition, as the person moves nearer the window, lighter is accessible, and his image on your retina gets brighter. When the person moves absent from the window, the image gets darker. Retina senses this method but what you perceive? We see the person in the same method with no changes. This type of adjustment is due to perceptual constancy.

Perceptual constancy is of four types – size constancy, shape constancy, color constancy and brightness constancy. Perceptual size of an object remains the same when the aloofness is varied.

Similarly we perceive objects as constant in brightness and color, even though they are viewed under different circumstances. Objects appear to be of same brightness no matter what the lighting circumstances. Object maintains its color no matter what the lightening or what other colors are close to. Perceptual constancies are highly useful in our life. Had it not been so, we would have been badly occupied in managing several sensations and their impact on perceptual adjustment. This method, the gap flanked by our sensations and the perception supervised through constancies is clearly beneficial.

Touch

Sensitivity to touch is present at the time of birth. Newborn babies react to touch particularly on palm, approximately mouth and in the soles of feet. Infants are sensitive to sensation of pain. When touch produces pleasure instead of pain it

increases child‘s responsiveness to the environment. For instance, you might have noticed that when an infant is given soft soothing caresses he smiles and pays attention to caregiver. Infants explore and investigate the world approximately them. They run their hand on objects. When they develop the capability of reaching out to things, babies first place any object into their mouth and then have a good look at the object. This kind of exploration reaches its peak throughout the middle of first year and declines afterwards as babies create more use of hands to explore and investigate objects from different angles. For instance, infants of one year or more would turn an object approximately, feel its surface, rub the surface to see what happens and then again pick it up to view.

Taste and Smell

Reactions to taste and smell are crucial for survival. Infants are innately programmed for their taste preferences. Newborns are able to distinguish many basic tastes in the manner of an adult. For instance, they respond to sweetness through relaxing their facial muscles, and when the taste is sour they react through distorting their lips and so on. Taste for salty objects is not present at birth time. But through the time infant is four months old they prefer salty water to plain water, a change that readies him for solid foods later on.

Like taste, certain smell preferences are innate. For instance, young babies provide relaxed facial expressions when confronted with pleasant smell but express discomfort on smell of a rotten object, not only this, they even express skill to recognize the source of discomforting smell through turning head in the other direction.

Hearing

Newborn babies can hear a diversity of sounds but they respond more to some than other sounds. It seems they are innately programmed to respond to auditory sensations. Throughout the first few days they are able to recognize the difference flanked by sound patterns. As the child grows up throughout the first year it organizes sounds into elaborate patterns. A baby can differentiate flanked by two slightly differing tunes, can fairly distinguish flanked by pleasant and sad voices of adults. Responsiveness to sound promotes infant‘s visual and tactile exploration of the environment.

As parents talk to the baby, development of language and emotions receive further impetus. An infant‘s sensitivity to sound gives fundamental basis for perceptual and cognitive development. So any impairment and loss of hearing can detrimentally affect the child‘s development.

A person with a profound hearing loss cannot hear speech and may only hear loud vibrating noises such as airplanes. Any type of hearing loss can present unique challenges and barriers in accessing environmental information. Very often hearing loss results in delayed language progress, reduced task persistence, social isolation in early childhood and poor academic performance after school entry. Actually children with auditory difficulties are less attentive to the speech of others and less persistent at task and this difficulty may be due to repeated instances in which they could not create out what people approximately them were saying.

Factors That Affect Perception

Perception is the process whereby the brain interprets sensations, giving information order and meaning. Without sensations of some kind perception could not occur.

There are several factors that affect our perception.

1. Context and expectation.
2. Motivation and emotion.
3. Values, culture and personality.
4. Difference threshold: it is the smallest detectable difference between two stimuli.
5. Webber s low: the just noticeable difference is in constant proportion to the intensity of an initial stimulus.
6. Sensory adaptation: it is the tendency of receptor cells in the sense organs to respond less and less to a constant stimulus.
7. Figure-ground perception: it is perceptual relationship between the object of focus (the figure) and the field (the ground).

Directions of Perception

The processing of perception precedes two directions. These are top-down and bottom-up directions.

The top-down processing of Perception is guided by a higher-level of knowledge, experience, expectations and motivations. Patterns can be recognized easily and rapidly because we expect certain shapes to be found in certain location. If a student, for example**,** is reading a text in psychology material he expects sentences from psychology not lines from a poem. In the top-down processing the context in which we perceive objects is important.

The bottom-up of Perception consists of recognizing and processing information about the individual components of the stimuli. It may be difficult to recognize the sentence without being able to perceive the individual shapes that make up the letters.

Conclusion: top-down and bottom-up processing occur simultaneously and interact with each other in our perception of the world around us.

Theories of Perceptual Development

***The Theory of Differentiation (Gibson*)**

This theory stated that infants actively search for invariant features of the environment. They look for those features which are stable in a changing world. For instance, take the case of pattern perception, initially what babies perceive is a mass of stimulation but they are looking for characteristic that stand out to create contour or border of incentive and begin to form some image representing an object. After that they explore internal features and stable relationships among these features. We can assume that infants have a built in capability or tendency to look for order and stability in the environment that surrounds them.

Another concept given through Gibson's to explain perceptual development is ***Affordances*.** It means action possibilities that a situation offers an organism with certain motor capabilities. For instance, we know that we can squeeze, roll and

bounce a ball that means we are of possible actions that we can perform with the ball. Awareness of affordances creates a child future oriented and determines success. Affordances are acquired in the process of exploration and investigation.

Review questions

1. Why the study of sensation and perception is of exceedingly important?
2. Briefly describe the differences between sensation and perception.

Memory

1. The Definition of Memory and its Functions

2. Factors That Influence and Improve Memory

3. Kinds of Memory

4. Processes of Memory

Basic terms: *memory, encoding, storage, retrieval, forgetting, sensory memory, short-term and long-term memory.*

The Definition of Memory and its Functions

In psychology Memory is the process in which information is encoded, stored and retrieved. Encoding allows information that is from the outside world to reach our senses in the forms of chemical and physical stimuli. In this first stage we necessity change the information so that we may put the memory into the encoding process. Storage is the second memory stage or process. This entails that we maintain information over periods of time. Finally the third process is the retrieval of information that we have stored. We necessity locate it and return it to our consciousness. Some retrieval attempts may be effortless due to the type of information.

There are three main stages in the formation and retrieval of memory:

Encoding or registration: getting, processing and combining of received information.

Storage: creation of a permanent record of the encoded information.

Retrieval, recall or recognition: calling back the stored information in response to some cue for use in a process or activity.

The loss of memory is described as forgetfulness, or as a medical disorder, amnesia.

Memory degrades with the passing of time. This occurs in the storage stage of memory, after the information has been stored and before it is retrieved. This can happen in sensory, short-term, and long-term storage. It follows a general pattern where the information is rapidly forgotten throughout the first couple of days or years, followed through small losses in later days or years.

Memory failure due to the lack of attention: attention plays a key role in storing information into long-term memory; without proper attention the information might not be stored, making it impossible to be retrieved later.

Factors that Influence Memory

Influence of Emotions

Emotions can have a powerful impact on memory. Numerous studies have shown that the most vivid autobiographical memories tend to be of emotional events,

which are likely to be recalled more often and with more clarity and detail than neutral events.

Sometimes the feeling can be overwhelming. This is when a memory can be hazy yet vivid or haunting with perfect clarity. This detection led to the development of a drug to help treat posttraumatic stress disorder. When someone is in a heightened emotional state, the events causing it become strong and ground in the memory, sometimes disrupting daily life for years.

Interference from Previos Knowledge

Researchers have found that memory accuracy of adults is hurt through the fact that they know more, and have more experience than children, and tend to apply all this knowledge when learning new information.

Interference can hamper memorization and retrieval. There is retroactive interference, when learning new information creates it harder to recall old information and proactive interference, where prior learning disrupts recall of new information. Although interference can lead to forgetting, it is significant to keep in mind that there are situations when old information can facilitate learning of new information. Knowing Latin, for instance, can help an individual learn a related language such as French – this phenomenon is recognized as positive transfer.

The International Longevity Center released in 2010 a report which comprises recommendations for keeping the mind in good functionality until advanced age. Some of the recommendations are to stay intellectually active through learning, training or reading, to keep physically active so to promote blood circulation to the brain, to socialize, to reduce stress, to keep sleep time regular, to avoid depression or emotional instability and to observe good nutrition.

Methods that Affect how an Experience is Stored in Memory.

Organization - Mandler (1967) gave participants a pack of word cards and asked them to sort them into any number of piles using any system of categorization they liked. When they were later asked to recall as several of the words as they could, those who used more categories remembered more words. This study suggested that the organization of memory is one of its central characteristics.

Distinctiveness - Eysenck (1980) asked participants to say words in a distinctive method spell the words out loud. Such participants recalled the words better than those who simply read them off a list.

Effort – Tyler (1979) had participants solve a series of anagrams, some easy (FAHTER) and some hard (HREFAT). The participants recalled the hard anagrams better, presumably because they put more effort into them.

Elaboration- Palmere (1983) gave participants descriptive paragraphs of a fictitious African nation. There were some short paragraphs and some with extra sentences elaborating the main thought. Recall was higher for the ideas in the elaborated paragraphs.

Methods to Optimize Memorization

Memorization is a method of learning that allows an individual to recall information verbatim. Rote learning is the method most often used. The spacing effect shows that an individual is more likely to keep in mind a list of items when

rehearsal is spaced over an extended period of time. In contrast to this is cramming which is rigorous memorization in a short period of time.

Also relevant is the ***Zeigarnik effect*** which states that people keep in mind uncompleted or interrupted tasks better than completed ones.

Kinds of Memory

Researchers distinguish flanked by recognition and recall memory. Recognition memory tasks require individuals to indicate whether they have encountered an incentive (such as a picture or a word) before. Recall memory tasks require participants to retrieve previously learned information. For instance, individuals might be asked to produce a series of actions they have seen before or to say a list of words they have heard before.

Classification through Information Type

Topographic Memory involves the skill to orient oneself in space, to recognize and follow an itinerary, or to recognize familiar places. Getting lost when traveling alone is an instance of the failure of topographic memory. This is often reported among elderly patients who are evaluated for dementia. The disorder could be caused through multiple impairments, including difficulties with perception, orientation.

Declarative Memory

Declarative memory requires conscious recall, in that some conscious process necessity calls back the information. Declarative memory can be further sub-divided into semantic memory, which concerns facts taken independent of context; and episodic memory, which concerns information specific to a scrupulous context, such as a time and place. Semantic memory allows the encoding of abstract knowledge in relation to the world, such as "Paris is the capital of France". Episodic memory, on the other hand, is used for more personal memories, such as the sensations, emotions, and personal associations of a scrupulous place or time. Visual memory is part of memory preserving some characteristics of our senses pertaining to visual experience. One is able to place in memory information that resembles objects, places, animals or people in sort of a mental image. Visual memory can result in priming and it is assumed some kind of perceptual representational system underlies this phenomenon.

Procedural Memory

In contrast, procedural memory (or implicit memory) is not based on the conscious recall of information, but on implicit learning. Procedural memory is primarily employed in learning motor skills and should be measured a subset of implicit memory. It is revealed when one does better in a given task due only to repetition - no new explicit memories have been formed, but one is unconsciously accessing characteristics of those previous experiences. Procedural memory involved in motor learning depends on the cerebellum and basal ganglia.

A characteristic of procedural memory is that the things that are remembered are automatically translated into actions, and therefore sometimes hard to describe. Some examples of procedural memory contain the skill to ride a bike or tie shoelaces.

Classification through Temporal Direction

A further major method to distinguish different memory functions is whether the content to be remembered is in the past, retrospective memory, or whether the content is to be remembered in the future, prospective memory. Therefore,

retrospective memory as a category comprises semantic, episodic and autobiographical memory. In contrast, prospective memory is memory for future intentions or remembering to keep in mind. Prospective memory can be further broken down into event- and time-based prospective remembering.

Processes of Memory

Three processes are involved in memory: encoding, storage and retrieval. All of these processes determine whether something is remembered or forgotten.

Encoding

Processing information into memory is described encoding. People automatically encode some types of information without being aware of it. For instance, most people almost certainly can recall where they ate lunch yesterday, even though they didn‘t try to keep in mind this information. Though, other types of information become encoded only if people pay attention to it. College students will almost certainly not keep in mind all the materials in their textbooks unless they pay close attention while them rereading.

There are many different methods of encoding verbal information:

Structural encoding focuses on what words look like. For instance, one might note whether words are long or short, in uppercase or lowercase, or handwritten or typed.

Phonemic encoding focuses on how words sound.

Semantic encoding focuses on the meaning of words. Semantic encoding requires a deeper level of processing than structural or phonemic encoding and usually results in better memory.

Storage

After information enters the brain, it has to be stored or maintained. To describe the process of storage, several psychologists use the three-stage model proposed through Richard Atkinson and Richard Shiffrin. According to this model, information is stored sequentially in three memory systems: sensory memory, short-term memory, and long-term memory.

Sensory Memory

Sensory Memory stores incoming sensory information in detail but only for an instant. The capability of sensory memory is very large, but the information in it is unprocessed. If a flashlight moves quickly in a circle inside a dark room, people will see a circle of light rather than the individual points through which the flashlight moved. This happens because sensory memory holds the successive images of the moving flashlight long enough for the brain to see a circle. Visual sensory memory is described iconic memory; auditory sensory memory is described echoic memory.

Short-Term Memory

Some of the information in sensory memory transfers to short-term memory, which can hold information for almost twenty seconds. Rehearsing can help keep information in short-term memory longer. When people repeat a new phone number over and over to themselves, they are rehearsing it and keeping it in short-term memory.

Short-Term Memory has a limited capability: it can store in relation to the seven pieces of information, plus or minus two pieces. These pieces of information

can be small, such as individual numbers or letters, or superior, such as familiar strings of numbers, words, or sentences. A method described chunking can help to augment the capability of short-term memory. Chunking combines small bits of information into bigger, familiar pieces.

Psychologists today consider short-term memory to be a working memory. Rather than being just a temporary information storage system, working memory is an active system. Information can be kept in working memory while people process or examine it. Working memory allows people to temporarily store and manipulate visual images, store information while trying to create decisions, and keep in mind a phone number long enough to write it down.

Long-Term Memory

Information can be transferred from short-term memory to long-term memory and from long-term memory back to short-term memory. ***Long-Term memory has an approximately infinite capability, and information in long-term memory usually stays there for the duration of a person's life***. Though, this doesn't mean that people will always be able to keep in mind what's in their long-term memory—they may not be able to retrieve information that's there.

Retrieval and Forgetting. Retrieval is the process of getting information out of Memory. Retrieval cues are stimuli that help the process of retrieval. Retrieval cues contain associations, context and mood.

Associations. Because the brain stores the information as networks of associated concepts recalling a scrupulous word becomes easier if another related word is recalled first. Recall is connected with emotion. If pain, joy, excitement or any other strong emotion is present throughout the event the neurons active throughout this event produce strong connections with each other. When this event is remembered or recalled in the future the neurons will more easily and speedily create the same connections. The strength and longevity of memories is directly related to the amount of emotion felt throughout the event of their creation.

Context. People can often keep in mind an event through placing themselves in the same context they were in when the event happened.

Mood. If people are in the same mood they were in throughout an event they may have an easier time calling the event.

These factors could be amount of time the new information is stored in the memory. Events involved with forgetting can happen either before or after the actual memory process. Forgetting can be reduced through repetition and/or more elaborate cognitive processing of information. Emotional states are just one of the factors that have been found to affect the process of forgetting.

Review questions

1. Explain the functions of memory.
2. Explain the kinds of memory.
3. Describe the memory processes.

Thinking and Language

1. The Models of Thinking

2. Language and its Functions

3. The Influence of Thought upon Language

Basic terms*: thinking, language, external speech, inner speech, iconic, enactive and symbolic representation, schemata.*

The Models of Thinking

Thinking has been defined as the process involved in manipulating information, either composed through the senses or stored in memory from previous experience, so as to be able to respond to the immediate situation.

We shall examine several models of thinking.

A Freudian View of Thinking

For Freud and the psychoanalysts, thinking is closely related to their view of basic human motives. For them, the basic human motive is the satisfaction of bodily needs. Where these needs are not fully satisfied, memory of them is brought into play. This memory is associated with the kind of excitation that actual food, warmth and get in touch with evoke. Some of the energy released is devoted to solving the problem, to changing the environment so that the food, the warm, the get in touch with is obtained.

This is essentially unretional thinking, driven through emotional rather than through rational processes. Freud creates a distinction flanked by primary and secondary thought processes. While secondary thought embraces rational conscious thought of which we are normally aware, primary thought processes are normally unconscious.

There seem to be three separate levels of thinking:

Preconscious thought, which comprises those thoughts and ideas which are not engaging our consciousness at the moment, to which we are currently not paying attention but which nevertheless exist for us.

Conscious thought, to which we are currently paying attention and on which we are engaging our minds.

Unconscious thought, which remains inaccessible to our consciousness but which nevertheless, plays a part in determining our behavior.

Piaget's View of Thought

The building blocks of an individual's intelligence Piaget termed schemata. They are continually being customized or added to through get in touch with the environment so that the individual's version to that environment becomes more complete. The process involved is one of equilibration. When something new manifests itself in an individual's environment his or her mind is thrown into a state of imbalance or disequilibrium. This is uncomfortable, so there is motivation to find a new balance. This new balance occurs through version, which takes the form either of assimilation or else of accommodation. With assimilation, an object or a thought is understood in conditions of the concepts or actions (schemata).

A Behaviorist Model of Thinking

Behaviorists found some difficulty in explaining thinking. It did not seem to accord well with their principle that all mental processes were essentially the forming

of associations flanked by stimuli. Watson viewed thinking as sub vocal speech. The process of thinking inevitably involved inner language. This was a motor theory of thought. Some work was done with deaf mutes. It might be expected under Watson‘s theory that they would move their fingers more than a normal group of adults when they were thinking: they used their fingers for sign language, after all. There did seem to be a higher correlation flanked by motor activity in the fingers and thinking than in a hearing group of adults.

Skinner later viewed thinking as private behavior as opposed to overt behavior. He attempted to show that both overt behavior and thinking were controlled through operant conditioning. In overt behavior, there was an interaction with someone else, while, with thinking, individuals are their own listeners. There is in effect an interaction with themselves.

Cognitive Approaches to Thinking

Cognitive approaches to thinking have attempted to examine the mental processes which occur throughout thinking. Miller recognized what they referred to as heuristic strategies. These were models which enabled them to simulate the method in which the mind solved problems. The complexities of a problem might be simplified through working out a series of rules of thumb. These could then be applied one at a time. Though this did not guarantee that a solution to the problem could be found, it reduced the problem to manageable proportions.

A computer could then be programmed to deal with it. For instance, in programming a computer to play chess, a set of instructions had to be devised such as `check that the king is safe' or `create sure that the queen cannot be taken'. Newell and Simon attempted to mirror human problem solving and behavior in a heuristic method. To validate the models set up, they relied on individuals' verbal reports of what was going on in their heads while they attempted to solve problems. In this method, computer models were constructed of how problems were solved. Within these models the program was analogous to the set of rules or instructions within which a person operated; the computer memory was analogous to the memory of the individual, and the input and output from the computer represented the problem posed and the solution found.

Though, because human brains are not computers and cannot be so rigidly controlled there were difficulties, including the following. It is not very useful to think of human beings as machines. Any analogy is bound to be partial only, as we do not fully understand the principles on which the human brain operates. Computers, while they are very accurate and efficient calculators and solvers of logical problems, are not capable of original and creative thinking. Computers are not susceptible to human emotions. They do not get tired, anxious, angry or afraid.

Language and its Functions

Language is a system of communication that uses symbols in a regular way to create meaning. Language is used for the transmission of information. Human language is the most complex behavior on the planet and at least as far as we know in the universe. Language involves both the ability to comprehend spoken and written words and to create communication in real tame when we speak and write. Most languages are oral generated to speaking. Speaking involves a variety of complex

cognitive, social and biological processes. Other languages are sing languages, in which the communication is expressed by movements of the hands.

Language allows us to access existing knowledge, to draw conclusion, to set and accomplish goals and to understand and communicate complex social relationships. Language is fundamental to our ability to think, and without it we would be nowhere near as intelligent we are.

The Components of Language

Language can be conceptualized in terms of sounds, meaning and the environmental factors that help us understand it.

Phonemes are the elementary sounds of our language.

Morphemes are the smallest units of meaning a language.

Syntax is the set of grammatical rules that control how words put together.

Contextual information is the elements of communication that are not part of the content of language but that help us understand its meaning.

Restricted and Elaborated Codes of Language

Hess and Shipman have proposed that there are differences in the methods in which language is used in low status and high status families. They suggested that in high status (middle class) family‘s language conveys meaning. It describes, explains and expresses feelings. In low status (working class) families language tends to be used more to provide orders to the child, who is therefore deprived of the same access to meaning as higher status children. Bernstein claimed that working-class and middle-class children use different language codes.

Restricted code of language, used through working-class children, is syntactically crude, has short, grammatically simple sentences, a restricted vocabulary and is context-bound. That is to say, meaning depends to a high degree upon the context in which it is used.

Elaborated code of language, used through middleclass children, employs a superior vocabulary, more intricate and flexible grammar and syntax and allows abstract thought to be expressed more easily. Tutor of children on a bus, who insist upon getting up and walking approximately, might simply say «Sit down and keep quiet!» or, if they persisted, «Sit down and keep quiet or I'll hit you!». But if using an elaborated code of language might say «You had better sit down in your own seats or the bus might suddenly stop and you would be thrown violently on the floor and hurt yourselves.» This seems to point a link flanked by the kind of language used through individuals and the thought processes and intellectual development of these individuals. The more educated individual the more elaborate his language to be used.

Bernstein claimed that the lack of an elaborated code of language is a barrier to working-class children developing their full intellectual potential. Additionally, the pattern of learning in schools is based upon the use of an elaborated code. Teachers are, after all, usually middle-class and certainly equipped with elaborated codes of language. They may not communicate adequately with some of the working-class children in their charge.

It has been suggested that the conditions «restricted» and «elaborated» are value-laden and that middle-class language is in some method regarded as superior.

This is perhaps misleading. It is likely that most people employ what Bernstein would regard as a restricted code for some of the time. There is certainly some upper-class language usage which is just as restricted. Educated people have access to an elaborated code which they can use when they need to. Some less educated people do not. This places them at a disadvantage intellectually.

Thought as Sub Vocal Speech

A more extreme view has been taken through behaviorists and in scrupulous by Watson. His suggestion was that thinking was sub vocal speech. The assumption was made that when someone attempted to solve a problem it necessarily involved some kind of inner language.

When individuals thrash about with a problem, especially in stressful circumstances, they regularly talk to themselves. If you enter an infant classroom, there will often be a buzz apparent, of children vocalizing their thoughts. But this is not the same as saying that it is necessary for them to vocalize in order to think.

Study accepted out through Smith would seem to indicate that it is not. Smith was given an unusual derivative which paralyzed him totally. He was kept alive on an artificial respirator. Sub vocal speech was impossible. Thought should also have been impossible according to Watson's hypothesis. Nevertheless, he later reported that he was able to understand and think in relation to the people were saying while he was paralyzed.

The Influence of Thought upon Language

Language as one of a Number of Functions

Piaget claimed that language was just one among a number of symbolic functions. Others incorporated symbolic play and imagery. He maintained that: «Language and thought are connected in a genetic circle... in the last analysis, both depend upon intelligence itself, which antedates language and is independent of it».

Piaget has taken an opposite view of the relationship flanked by thought and language. For him, intellectual development comes first, and without it language is little more than meaningless babble. As an illustration of this, Sinclair-de-Zwart studied children who had acquired the concept of conservation of volume. A level of intellectual development where children can appreciate that the volume of a liquid remains constant even when it is poured from a tall slender container to a short squat one. He found that they understood the meaning of words such as «more», «bigger», «as much as». Those children who had not reached the stage of conservation of volume found it hard to use such words correctly even when given specific linguistic training.

Language and Thought as Separate

For Bruner, language and thought are separate. He postulated three methods in which a child can retain and use information from the environment:

Through enactive representation: that is to say, through means of physical manipulation of the environment.

Through iconic representation: that is, picturing the environment mentally.

Through symbolic representation, particularly through language.

Nonlinguistic thought comes first (what he conditions enactive or iconic representation of the world). After language has urbanized, thought is amplified and accelerated in symbolic representation.

Thought and Language as Independent

Vygotsky held that language had two separate characteristics:

As a monitor and controller of a person's private thoughts – inner speech.

As a means of communicating those thoughts to others – external speech.

He claimed that in infancy, thinking and language are independent. To begin with, a child's attempts to use language represent purely social speech, with no inner thought. Simultaneously, the child is developing primitive forms of thinking and reasoning, which do not involve language. Then, at in relation to the age of two the social speech and the primitive thinking begin to come together. Words begin to act as symbols for thoughts.

Vygotsky would agree with Piaget that the earliest thought is independent of language but where they part company is that Vygotsky claimed that language plays an essential part in a child's intellectual development after in relation to the age of two. Later, after in relation to the age of seven, language and thought again separate, with language having two separate functions:

Internal language for the child itself as an aid to thought (egocentric speech).

But children under in relation to the four or five regularly express this egocentric speech aloud, as do older people in situations of stress.

External language as a means of communicating thought to others.

Review questions

1 Give your comments on the different theoretical approaches to the understanding of thinking.

2. Explain the functions of language.

3. Evaluate the influence of thought upon language.

Intelligence and Motivation

1. The Definition of Intelligence. Theories of Intelligence

2. Intelligence and Aptitudes

3. Motivation and Behavior. Theories of Motivation

Basic terms*: intelligence, componential, experiential and contextual intelligence, aptitude, motivation*.

The Definition of Intelligence. Theories of Intelligence.

Intelligence has been defined in several different methods including logic, abstract thought, understanding, self-awareness, communication, learning, having emotional knowledge, retaining, planning, and problem solving. Intelligence is most widely studied in humans.

Artificial intelligence is the simulation of intelligence in machines. Within the discipline of psychology, several approaches to human intelligence have been adopted.

The definition of intelligence is controversial. Some groups of psychologists have suggested the following definitions: From "Mainstream Science on

Intelligence"(2004), an editorial statement through fifty-two researchers: A very general mental capability that, among other things, involves the skill to cause, plan, solve problems, think abstractly, comprehend intricate ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic ability, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings – «catching on», «making sense» of things, or «figuring out» what to do.

From "Intelligence: Known‘s and Unknowns" (2005), a report published through the Board of Scientific Affairs of the American Psychological Association: Individuals differ from one another in their skill to understand intricate ideas, to adapt effectively to the environment, to learn from experience, to engage in several forms of reasoning, to overcome obstacles through taking thought. Although these individual differences can be substantial, they are never entirely constant: a given person's intellectual performance will vary on different occasions, in different domains, as judged through different criteria.

Concepts of «intelligence» are attempts to clarify and organize this intricate set of phenomena. Although considerable clarity has been achieved in some areas, no such conceptualization has yet answered all the significant questions, and none commands universal assent.

Intelligence theorists fall into two categories. In one group are those who argue for a «general intelligence» that characterizes a person's actions and thinking in all areas. Their critics consider that intelligence is composed of several separate types of aptitudes and abilities, and that a person who excels in one area will not necessarily excel in all areas.

Early Theories: Spearman, Cattell and Thurstone

Spearman whispered that intelligence is general: People who are bright in one area are bright in other areas as well. Thurstone disagreed: He whispered that intelligence encompasses some mental abilities that are relatively independent of one another.

In contrast, Cattell divided mental abilities into two clusters. The first is crystallized intelligence, or abilities such as reasoning and the verbal and numerical skills that are stressed in school. The second is fluid intelligence, or skills such as spatial and visual imagery, the skill to notice visual details, and rote memory.

Contemporary Theories: Sternberg and Gardner

In the mid-1980s, Yale psychologist Robert Sternberg proposed a triarchic theory of intelligence that comprises a much broader range of skills and abilities. According to this theory, intelligence consists of three overarching characteristics: componential intelligence, the traditional mental processes or skills accentuated through earlier theories of intelligence, such as the skill to acquire new knowledge and perform tasks efficiently; experiential intelligence, characterized through insight and creative adaptability as well as efficient and quick processing of information without conscious thought; and contextual intelligence, marked through responsiveness to the environment.

Intelligent people, according to Sternberg, are adept at making the most of their strengths and compensating for their weaknesses.

Howard Gardner has proposed his theory of multiple intelligences, which asserts that what we refer to as intelligence actually consists of several separate abilities, each of which is relatively independent of the others.

Heredity Theory

Historically, research on the determinants of intelligence has focused on identical twins – some reared together; others reared separately in separate households. The correlation flanked by the IQs of all identical twins is usually very high, indicating that their identical genetic inheritance is a more powerful determinant of intelligence than their experiences. But critics of this research create many strong points. It is hard to find identical twins who have been separated at birth, so that there are only a few such studies; identical twins tend to be placed in households similar in socioeconomic background to those of their biological parents; and even twins separated at birth have had almost identical prenatal experiences.

Environment Theory

Research on humans strengthens the case for environment as a factor in the development of superior intellectual skill. Therefore , even though certain mental abilities are inherited, without the necessary stimulation a child's intelligence will not develop. This finding is significant because lower-income families don't have access to the kinds of resources that other families do. Significantly, when they are placed in more stimulating environments, economically deprived children show an improvement in their level of intelligence. For instance, lower-income children raised in middle-class homes display important gains in IQ compared with their counterparts rising up in low-income households.

The IQ Debate: A Continuing Controversy

Accounting for group differences in IQ poses a vexing problem in psychology. A milestone in this debate was the 1969 publication of an article through psychologist Arthur Jensen, claiming that overall differences in IQ scores flanked by the races are largely inherited. Jensen's article raised a storm of controversy, which swelled up again in 1994 with the publication of a book on this topic through Richard Herrnstein and Charles Murray. Significantly, most participants in this debate agree that both heredity and environment affect IQ scores.

Intelligence and Aptitudes

An Aptitude is a component of a competency to do a certain kind of work at a certain level, which can also be measured "talent". Aptitudes may be physical or mental. Aptitude is not knowledge, understanding, learned or acquired abilities (skills) or attitude. The innate nature of aptitude is in contrast to achievement, which represents knowledge or skill that is gained.

Aptitude and intelligence quotient are related, and in some methods opposite views of human mental skill. Whereas intelligence quotient sees intelligence as being a single measurable characteristic affecting all mental skill, aptitude refers to one of several different characteristics which can be independent of each other, such as aptitude for military flight, air traffic control, or computer programming.

Concerning a single measurable characteristic affecting all mental skill, analysis of any group of intelligence test scores will almost always show them to be highly correlated. The U.S. Department of Labor's General Learning Skill, for

instance, is determined through combining Verbal, Numerical and Spatial aptitude subtests. In a given person some are low and others high. In the context of an aptitude test the "high" and "low" scores are usually not distant separately, because all skill test scores tend to be correlated. Aptitude is better applied intra-individually to determine what tasks a given individual is more skilled at performing. Inter-individual aptitude differences are typically not very important due to IQ differences.

Motivation and Behavior

Motivation is the factor that directs the behavior of humans and organisms. Motivation plays a role of energizing behavior from inside. A motivated individual initiates and accomplishes several responses in the environment, and achieves his/her goals faster, more vigorously, and more persistently than does one who is less motivated. Motivation is noted to be long lasting. It accounts for performed behaviors and explains the way of behavior. We can so say that motivation has direct impact on behavior as it creates behavior much more goal and purpose oriented.

Through nature, most motives go cyclically. There is usually a start point, which ends to become itself after some time laps. Motivation refers to states within a person or animal that drive behavior toward some goal. In this definition, there are three points that need emphasis:

Motivating state - this state could also be described the drive. It arouses the motivating behavior. The arousal could start to function mainly through three factors: internal bodily needs, external sensory stimulation, and cognitive experiences.

The behavior that is aroused through the drive - this one is instrumental in satisfying our drive. This behavior is a means to an end. It is going to settle the unsettled feelings in us.

The goal (end) - depending on the drive that activates the present motivating state, this is the reduction of the drive. This one is an end through itself hence it is the satisfaction of the need we experienced at the first stage.

Depending on the motivating state that is moving us at a certain point in time, goals could be positive or negative. We approach positive goals and try to satisfy them. On the other hand, we avoid or escape from negative goals that frustrate or endanger us. Both satisfy a certain motive though we approach the positive as pleasant and avoid the negative as unpleasant.

Theories of Motivation

Drive-Reduction Theory or «Push» Theory – states that the reduction of biological drives, like hunger, thirst, oxygen, pain avoidance is pleasure producing. A drive is an internal states of tension that motivates (pushes) an organism to engage in activities that should reduce this tension. This theory is simple with several limitations since the source of pleasure is not always associated with biological drive reduction. But it has significance in explaining the fact that when we lack something that is significant for our survival, there is the drive that motivates us to satisfy it.

Incentive Theory – this is described «***Pull» Theory*** because the goal objects pull behavior toward them. In contrast from the drive theory, this theory says that the response to what is motivating us at a certain point in time is valued more than

anything in the environment. This is so because people expect pleasure from the attainment of what are described positive incentives, and from avoidance of negative incentives. So, the response is acting as a goal (incentive) to our motivating behavior. Experiments on the proof of this theory show that organisms tend to like the goal they achieved when they really wanted it and when it is something they like more.

Arousale Theory – this theory tells us in relation to the things arouse (excite) organisms to respond in a certain manner to their nearby. It says that both high and low arousal states do not create our performance effective. So, to become effective, it is good to be in an intermediate state of arousal.

There are four general sources of arousal:

-Physiological (internal) drives and incentives are arousing;

-Intensity of environmental stimuli effects our arousal;

-Surprising or new events arouse curiosity;

-Drugs arouse people to act in an excited manner.

Self-Actualization Theory

A. Maslow put what drive human beings from the bottom to the higher in order of hierarchy. The most significant ones are found at the base. Human beings necessity first satisfies their needs for survival – named physiological needs. After being able to eat, to drink, to sleep, people continue to care in relation to their. Safety needs that are avoidance of accidents and painful sensations. They contain concern for long-term survival, job security, pension, buying insurance, saving money, and the like. Love and belongingness (social) needs continue through having someone to love and through affiliating with others as a contributing member in the society. Here, an individual is able to identify his/her personal being. Esteem (ego) needs are the fourth elements in the hierarchy that Maslow described human beings get motivated through. People want to report their success to get prestige. This is the feeling of self-worth through knowing that others are aware of one‘s competence and value.

At the top of Maslow‘s hierarchy comes the last of the motivating states for human beings - self-actualization. Through this we explore and understand our potentialities to the full and influence the world. This is the state of self-fulfillment. Getting motivated through the self-actualization needs ultimately goes in making us actualize who we really are. At this stage, people feel satisfied of their current state of affairs.

This fifth need is highly influenced through the society we live in. This is because the urbanized society helps one get facilitated in the process of actualizing his/her own potentialities, while less urbanized society is not conducive place to satisfy this need.

The Kinds of Motives

Biological Motives

Biological Motives to a large extent, rooted in the physique (body). Since they are innate and internal, their arousal is basically unlearned. Most of them necessity be met for survival. They may show up in our behavior starting from birth, or they may come in relation to the maturation. The most significant primary motives contain hunger, pain avoidance, a need for oxygen, sleep, elimination of wastes, and regulation of body temperature. Several of these motives are triggered through

departures from balanced state of equilibrium described homeostasis in their internal physiological processes. Homeostasis, body equilibrium, works automatically to maintain balance among internal physiological circumstances

Social Motives

These are motives that are learned and satisfied in the context of others. As they are the wellsprings of several of human actions, they are intricate motive states. These human motives can be looked upon as general states that lead to different kinds of scrupulous behaviors. Not only do they help to determine much of what a person does, they persist, never fully satisfied, over the years. No sooner is one goal reached than the motive is directed to another one. These motives are significant components of personality. As they are learned, they also have different strengths from one person to another.

Motives toKnow and to be Efective

Motives to know and to be effective just like the physiological drives, these ones are also innate or unlearned. They are persistent and seem to exist to one degree or another in everyone. But their root is not the physique. Drives under this category highly contribute to the normal behavioral development of human beings. In some instances, there could be some interconnection flanked by the physiological needs and the ones in this classification. These motives drive a person to seek diversity in stimulation, to process information in relation to the nearby world, to explore, and to be effective in mastering challenges from the environment. So, they seek out sensory stimulation through continual interaction with the environment.

Review questions

1. Explain the concepts of intelligence in psychology.
2. Describe the theories of intelligence.
3. What is aptitude?
4. Explain the concepts of motivation in psychology.

Emotions

1. The Definition of Emotions

2. Expression of Emotions.

3. Theories of Emotions

4. Frustration and Conflict

Basic terms: *emotion**,** fundamental emotions, limbic system, frustration, conflict*

The Definition of Emotions

In psychology and philosophy emotion is a subjective, conscious experience characterized primarily through psychophysiological expressions, biological reactions, and mental states. Emotion is often associated and measured reciprocally influential with mood, temperament, personality, disposition, and motivation. Emotion is often the driving force behind motivation, positive or negative. Another definition of emotion is ***a positive or negative experience that is associated with a scrupulous pattern of physiological activity.***

Psychologists Plutchik (1984) after combining a large set of emotions came up with eight different fundamental emotions. There are: joy, acceptance, fear, surprise, sadness, disgust, anger and anticipation. But human emotions are much more than eight types. These eight types of emotions are not equally important across all cultures.

The functions of emotions: preparing us for action, shaping our future behavior, shaping us to regulate social interaction.

The physiology of emotion is closely connected to arousal of the nervous system with several states and strengths of arousal relating, apparently, to scrupulous emotions. Although those acting primarily on emotion may seem as if they are not thinking, cognition is a significant aspect of emotion, particularly the interpretation of events. For instance, the experience of fear usually occurs in response to a threat. The cognition of danger and subsequent arousal of the nervous system is an integral component to the subsequent interpretation and labeling of that arousal as an emotional state. Emotion is also connected to behavioral tendency.

In the human brain, learning, memory and emotions are housed in the limbic system nearby the brainstem. Within the limbic system, emotional impulses originate in the structure that triggers the physiological reactions associated with emotions.

Each emotion sparks a distinctive physiological reaction, the body‘s program for dealing with the different situations that arise in our emotional lives. Happiness cues the brain to suppress worrisome or negative feelings and increases the body‘s energy level. Research has substantiated the age-old theory that crying releases harmful toxins through showing that tears of sadness have a different chemical composition than tears of joy or those caused through irritants. Cardiologists have also found that crying can reduce stress and the harmful physiological reactions associated with it. Stress and anxiety set off the nervous system‘s "flight-or-fight" response, a chain of physiological events in which the blood pressure rises and muscles contract.

According to the American Medical Association, stress contributes to 75 per cent of all cases of illness in the United States. People can also engage in certain behaviors to induce the release of neurotransmitters, causing them to have the sensation of an emotional experience without having to identify and process their feelings. On the surface, this might seem like a good strategy for dealing with hard situations. But such behaviors can quickly become addictive and serve as false substitutes for true emotional wellness. Moreover, like most addictions, their potency slowly wears off as the body‘s tolerance level increases, forcing the people who resort to them to seek ever-greater levels of stimulation.

Ultimately, it is less the physiological effects of emotions than how we deal with them that affects our overall health. A decade-long study through Ohio State University researchers tracked both men and women who had been diagnosed with depression, but appeared free from cardiac problems. Over the course of the study, 46 per cent of the men eventually died from heart disease, compared to only 16 per cent of the women. The researchers theorized that the male tendency to bury feelings and avoid examining or expressing them might have led to the difference in mortality rates.

Expression of Emotions

Emotional expressions in psychology are observable verbal and nonverbal behaviors that communicate an internal emotional or affective state. Examples of emotional expression are facial movements such as smiling or scowling, or behaviors like crying or laughing. Emotional expressions can occur with or without self-awareness. Presumably, individuals have conscious control of their emotional expressions; though, they need not have conscious awareness of their emotional or affective state in order to express emotion.

Over the last 200 years, researchers have proposed different and often competing models explaining emotion and emotional expression, going all the method back to Charles Darwin. Though, all theorists in emotion agree that all normal, functioning humans experience and express emotions with their voices, faces, and bodies. The expression of romantic feelings is shaped through cultural and social factors.

There are several different theories in relation to the nature of emotion and the method that it is represented in the brain and body. Of the elements that distinguish flanked by the theories of emotion, perhaps the most salient is differing perspectives on emotional expression.

Some theories in relation to the emotion consider emotions to be biologically basic and stable crossways people and cultures. These are often described «basic emotion» perspectives because they view emotion as biologically basic. From this perspective, an individual's emotional expressions are enough to determine a person's internal, emotional state. If a person is smiling, he or she is happy. If a person is crying, he or she is sad. Each emotion has a constant and specific pattern of expressions, and that pattern of responses is only expressed throughout that emotion and not throughout other emotions.

Facial emotional expressions are particularly salient stimuli for transferring significant nonverbal signals to others. For that cause, emotional expressions are the best direct indicators of affective attitudes and dispositions. There is rising proof that brain regions usually occupied in the processing of emotional information are also activated throughout the processing of facial emotions.

Some theories of emotion take the stande that emotional expression is more flexible and that there is a cognitive component to emotion. These theories account for the malleability in emotion through proposing that humans appraise situations and, depending on the result of their appraisal, different emotions and the corresponding expressions of emotion are triggered. The tendency to appraise certain situations as one emotion or another can vary through person and culture; though, appraisal models still maintain that there are basic responses that are specific and constant to each emotion that humans feel.

Darwin claimed that the expression of emotions involves several systems: facial expression, behavioral response, and physical responses, which contain physiological, postural, and vocal changes. Most importantly, Darwin claimed that emotional expression was constant with his theories on evolution and, therefore , the expression of emotion is universal and should so be expressed similarly crossways race or culture. This is recognized as the universality hypothesis.

Theories of Emotions

The James-Lange Theory of Emotion

The James-Lange theory is one of the best-recognized examples of a physiological theory of emotion. Independently proposed through psychologist William James and physiologist Carl Lange, the James-Lange theory of emotion suggests that emotions occur as a result of physiological reactions to events.

According to this theory, you see an external incentive that leads to a physiological reaction. Your emotional reaction is dependent upon how you interpret those physical reactions. For instance, suppose you are walking in the woods and you see a grizzly bear. You begin to tremble and your heart begins to race. The James-Lange theory proposes that you will interpret your physical reactions and conclude that you are frightened («I am trembling, so I am afraid»).

The Cannon-Bard Theory of Emotion

Another well-know physiological theory is the Cannon-Bard theory of emotion. This theory states that we feel emotions and experience physiological reactions such as sweating, trembling and muscle tension simultaneously. More specifically, it is suggested that emotions result when the thalamus sends a message to the brain in response to an incentive, resulting in a physiological reaction.

Schechter-Singer Theory

This theory suggests that the physiological arousal occurs first, and then the individual necessity identify the cause behind this arousal in order to experience and label it as an emotion.

Frustration and Conflict

In psychology, ***Frustration is a common emotional response to opposition***. Related to anger and disappointment, it arises from the perceived resistance to the fulfillment of individual will. The greater the obstruction, and the greater the will, the more the frustration is likely to be. Causes of frustration may be internal or external. In people, internal frustration may arise from challenges in fulfilling personal goals and desires, instinctual drives and needs, or dealing with perceived deficiencies, such as a lack of confidence or fear of social situations.

Conflict can also be an internal source of frustration; when one has competing goals that interfere with one another, it can make cognitive dissonance. External causes of frustration involve circumstances outside an individual, such as a blocked road or a hard task. While coping with frustration, some individuals may engage in passive–aggressive behavior, making it hard to identify the original cause of their frustration, as the responses are indirect. A more direct, and common response, is a propensity towards aggression.

To the individual experiencing anger, the emotion is usually attributed to external factors that are beyond his or her control. Although mild frustration due to internal factors is often a positive force is more often than not a perceived uncontrolled problem that instigates more severe, and perhaps pathological anger. An individual suffering from pathological anger will often feel powerless to change the situation they are in, leading to and, if left uncontrolled, further anger.

It can be a result of blocking motivated behavior. An individual may react in many different methods. He/she may respond with rational problem-solving methods

to overcome the barrier. Failing in this, he/she may become frustrated and behave irrationally. An instance of blockage of motivational energy would be the case of a worker who wants time off to go fishing but is denied permission through his/her supervisor. Another instance would be the executive who wants a promotion but finds he/she lacks certain qualifications. If, in these cases, an appeal to cause does not succeed in reducing the barrier or in developing some reasonable alternative approach, the frustrated individual may resort to less adaptive methods of trying to reach the goal. He/she may, for instance, attack the barrier physically, verbally, or both.

Frustration can be measured a problem–response behavior, and can have a number of effects, depending on the mental health of the individual. In positive cases, this frustration will build until a level that is too great for the individual to contend with, and therefore produce action directed at solving the inherent problem. In negative cases, though, the individual may perceive the source of frustration to be outside of their control, and therefore the frustration will continue to build, leading eventually to further problematic behaviors.

Review questions

1. Explain the functions of emotions.
2. List down emotion types and give comments.
3. Explain the physiology of emotion.
4. Explain the emotional theories.
5. What is frustration?

Personality

1. The Definition of Personality

2. Determinants of out Personality

3. Theories of Personality

Basic terms: *personality, conscious, preconscious, unconscious, extraversion, neuroticism, personality traits.*

The Definition of Personality

Personality is the scrupulous combination of emotional, attitudinal, and behavioral response patterns of an individual. Different personality theorists present their own definitions based on their theoretical positions.

In the 4th century BC Greek physician Hippocrates thought that people could be classified into four types. Each of these types was connected with certain types of personality traits. There are: sanguine – active and rushness; phlegmatic – slowness and stability; choleric – ambitiosness and industrious; melancholic – pessimism and reflectiveness. Modern theories of personality, however, show that human personality is not simply combination of four qualities. Hippocrates`s temperament theory related biological characteristics to personality traits.

Personality psychology is a branch of psychology that studies personality and its difference flanked by individuals. Its areas of focus contain:

-construction of a coherent picture of the individual and his or her major psychological processes;

-investigation of individual psychological differences;

-investigation of human nature and psychological similarities flanked by individuals

Personality is a dynamic and organized set of characteristics possessed through a person that uniquely influences his or her cognitions, emotions, motivations, and behaviors in several situations.

The word "personality" originates from the Latin persona, which means mask. In the theatre of the ancient Latin-speaking world, the mask was not used as a plot device to disguise the identity of a character, but instead was a convention employed to represent or typif*y* that character.

Personality also refers to the pattern of thoughts, feelings, social adjustments, and behaviors uniformly exhibited over time that strongly influences one's expectations, self-perceptions, values, and attitudes. It also predicts human reactions to other people, problems, and stress.

There is still no universal consensus on the definition of "personality" in psychology. Gordon Allport described two major methods to study personality: the nomothetic and the idiographic. Nomothetic psychology seeks general laws that can be applied to several different people, such as the principle of self-actualization or the trait of extraversion. Idiographic psychology is an effort to understand the unique characteristics of a scrupulous individual.

The study of personality has a broad and varied history in psychology with an abundance of theoretical traditions. The major theories contain dispositional perspective, psychodynamic, humanistic, biological, behaviorist, evolutionary and social learning perspective. Though, several researchers and psychologists do not explicitly identify themselves with a certain perspective and instead take an eclectic approach. Research in this area is empirically driven, such as dimensional models, based on multivariate statistics, such as factor analysis, or emphasizes theory development, such as that of the psychodynamic theory. There is also a substantial emphasis on the applied field of personality testing. In psychological education and training, the study of the nature of personality and its psychological development is usually reviewed as a prerequisite to courses in abnormal psychology or clinical psychology.

Determinants of out Personality

Personality does not evolve through a single factor. It is a mixture of a lot of things. Some of those factors are psychological, some are physical, some are biological and some are even hereditary.

Brain

Brain is one of the most significant factors of personality determinant. It is usually whispered that the father and the child adopt approximately the same type of brain stimulation and the later differences are the result of the environment in which the child has been grown up. Electrical Stimulation of the Brain and Split Brain Psychology and the outcomes of genetic transmissions are the tools that are used through the management of any organization to mould and amend the employee‘s behavior to a more positive and proper one.

Physical Factors

One of the most significant factors in determining personality is the physical characteristics of an individual. It is whispered that this factor plays a vital role in determining one‘s behavior in any organization. Physical features may involve the height of a person (short or tall), his color (white or black), his health status (fat or skinny) and his beauty (handsome or ugly). These factors are involved when interacting with any other person and therefore contribute in the personality development in several methods.

Social Factors

Social factors also play a vital role in determining one‘s personality. The things that revolve and evolve approximately us on a regular basis determine our personality. The society that we live in, the cultural environment that we face daily, the community we get interacted to, all are incorporated in this factor. Relationships, co-ordination, co-operation, interaction, environment in the family, organizations, workplaces, communities, societies all contribute in method or another as personality determinants.

Cultural and Religious Factors

The culture in which one life in that may involve traditional practices, norms, customs, procedures, rules and regulations, precedents and values, all are significant determinants of personality. Moreover, the creed, religion and believes are also very significant factors of personality determinants.

Theories of Personality

Psychodynamic

Several psychologists have proposed theories that try to explain the origins of personality. One highly influential set of theories stems from the work of Austrian neurologist Sigmund Freud, who first proposed the theory of psychoanalysis. Collectively, these theories are recognized as psychodynamic theories. Although several different psychodynamic theories exist, they all emphasize unconscious motives and desires, as well as the importance of childhood experiences in shaping personality.

Sigmund Freud’s Theory of Psychoanalysis

In the late 1800s and early 1900s, Freud urbanized a technique that he described psychoanalysis and used it to treat mental disorders. He formed his theory of psychoanalysis through observing his patients. According to psychoanalytic theory, personalities arise because of attempts to resolve conflicts flanked by unconscious sexual and aggressive impulses and societal demands to restrain these impulses.

Freud whispered that most mental processes are unconscious. He proposed that people have three levels of awareness:

The conscious contains all the information that a person is paying attention to at any given time. Instance: The words Dan is reading, the objects in his field of vision, the sounds he can hear, and any thirst, hunger, or pain he is experiencing at the moment are all in his conscious.

The preconscious contains all the information outside of a person‘s attention but readily accessible if needed. Instance: Linda‘s telephone number, create of her car, and several of her past experiences are in her preconscious.

The unconscious contains thoughts, feelings, desires, and memories of which people have no awareness but that influence every aspect of their day-to-day lives. Instance: Stan‘s unconscious might contain angry feelings toward his mother or a traumatic incident he experienced at age four.

Freud whispered that information in the unconscious emerges in slips of the tongue, jokes, dreams, illness symptoms, and the associations people create flanked by ideas.

Alfred Adler's Individual Psychology

Alfred Adler, follower of Freud and a member of his inner circle, eventually broke absent from Freud and urbanized his own school of thought, which he described individual psychology. Adler whispered that the main motivations for human behavior are not sexual or aggressive urges but strivings for superiority. He pointed out that children naturally feel weak and inadequate in comparison to adults. This normal feeling of inferiority drives them to adapt, develop skills, and master challenges. Adler used the term compensation to refer to the effort to shed normal feelings of inferiority. Though, some people suffer from an exaggerated sense of inferiority, or inferiority intricate, which can be due either to being spoiled or neglected through parents. Such people overcompensate, which means that rather than try to master challenges, they try to cover up their sense of inferiority through focusing on outward signs of superiority such as status, wealth, and power.

Object-Relations Theories

The object-relations school of psychoanalysis appeared in the 1950s, led through a group of psychoanalysts that incorporated D. W. Winnicott and Melanie Klein. The term object relations refers to the relationships that people have with others, who are represented mentally as objects with certain attributes. Object-relations theorists consider that people are motivated most through attachments to others rather than through sexual and aggressive impulses. According to these theorists, the conflict flanked by autonomy and the need for other people plays a key role in shaping personality.

Criticisms of Psychodynamic Theories

Freud‘s original ideas have little popularity today, but several psychologists do adhere to neo-Freudian ideas. Though, other psychologists criticize psychodynamic theories for several reasons.

Some critics argue that psychodynamic theories are not falsifiable and so unscientific. In response to this criticism, proponents of psychodynamic theories point out that empirical proof does support some psychodynamic concepts. For instance, empirical research shows that there are unconscious mental processes, that people have mental representations of other people, and that people use unconscious protection mechanisms to protect themselves from unpleasant emotions such as anxiety.

Other critics argue that psychodynamic theories are made through generalizing from a small number of patients to the whole human population. Relying only on case

studies can lead to faulty conclusions. Still others argue that most psychodynamic theories are not based on studies that follow people from childhood to adulthood.

According to the Diagnostic and Statistical Manual of the American Psychiatric Association***, Personality traits are enduring patterns of perceiving, relating to, and thinking in relation to the environment and oneself that are exhibited in a wide range of social and personal contexts***. Theorists usually assume that

a) traits are relatively stable over time,

b) traits differ among individuals, and

c) traits influence behavior.

They uniformly are used in order to help describe people as a whole. Traits are relatively constant; they do not usually change. Traits are also bipolar; they vary beside a continuum flanked by one extreme and the other (e.g. friendly vs. unfriendly).

The most common models of traits incorporate three to five broad dimensions or factors. All trait theories incorporate at least two dimensions – extraversion and neuroticism, which historically featured in Hippocrates' humeral theory.

Gordon Allport delinead different kinds of traits, which he also described dispositions. Central traits are basic to an individual's personality, while secondary traits are more peripheral. Common traits are those recognized within a culture and therefore may vary from culture to culture. Cardinal traits are those through which an individual may be strongly recognized. In his book, Personality: A Psychological Interpretation, Gordon Allport both established personality psychology as a legitimate intellectual discipline and introduced the first of the modern trait theories.

Raymond Cattell's defined personality as that which permits a prediction of what a person will do in a given situation.

Lewis Goldberg proposed a five-dimension personality model, named the «Big Five»:

-Openness to Experience: the tendency to be imaginative, independent, and interested in diversity practical, conforming, and interested in routine.

-Conscientiousness: the tendency to be organized, careful, and disciplined disorganized, careless, and impulsive.

-Extraversion: the tendency to be sociable, fun-loving, and affectionate retiring, somber, and reserved.

-Agreeableness: the tendency to be softhearted, trusting, and helpful ruthless, suspicious, and uncooperative.

-Neuroticism: the tendency to be calm, secure, and self-satisfied anxious, insecure, and self-pitying in organizations, including decision-making and interpretation of other people's world-views.

Behavioral and Self

Behaviorists explain personality in conditions of the effects external stimuli have on behavior. The approaches used to analyze the behavioral aspect of personality are recognized as behavioral theories or learning-conditioning theories. These approaches were a radical shift absent from Freudian philosophy.

One of the major tenets of this concentration of personality psychology is a strong emphasis on scientific thinking and experimentation. This school of thought was urbanized through B. F. Skinner who put forth a model which accentuated the mutual interaction of the person or «the organism» with its environment. Skinner whispered children do bad things because the behavior obtains attention that serves as a reinforcer. For instance: a child cries because the child's crying in the past has led to attention. These are the response, and consequences. The response is the child crying, and the attention that child gets is the reinforcing consequence.

According to this theory, people's behavior is formed through processes such as operant conditioning. Skinner put forward a «three term contingency model» which helped promote analysis of behavior based on the «Incentive - Response - Consequence Model» in which the critical question is: «Under which circumstances or antecedent 'stimuli' does the organism engage in a scrupulous behavior or «response», which in turn produces a scrupulous «consequence»?

Review questions

1. Briefly explain some ways in which psychologists have defined personality
2. Evaluate Reger`s self-theory
3. What do you understand by type and trait personality?

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TUTORIALS AND STUDY GUIDES

Introductory Concepts in Psychology

Some Branches of Psychology

Research Methods in Psychology

At the end of this learning materiel the student is expected to:

-Define basic terms in the course;
-Explain the role of psychology as a means of promoting human welfare;
-Differentiate the subfields of psychology;
-Relate major perspective of psychology with issues it is concerned about;
-Describe and evaluate major theoretical approaches to psychology;
-Identify the main areas of research interest and professional activities in psychology;
-Analyze research methods of psychology.

The Subject Matter of Psychology and its Definition

Brainstorming

Students will exchange their experience on the following questions as a means to assess their preconception about the subject psychology.

1. What comes to your mind when you hear the word psychology?
2. Have you read or listened to anything related to psychology?
3. What was its content about?
4. Did you appreciate it? Why?
5. What do you expect from the course in psychology?

The introductory part of psychology emphasizes on two aspects:

1. Psychology as a science. A science is defined not by what it studies but by how it studies. Psychologists like any other scientists systematically observe facts about human beings and organize these facts to arrive at generalizations. Psychology shares with other sciences certain aims, assumptions, ways of carrying out research and ways of building and modifying theories.

2. Psychology is a body of knowledge that can be applied to help solve a variety of human problems. In addition to the contribution in the area of research (developmental, social, experimental, physiological psychology), there are many other areas of professional applications. Clinical psychologists work with psychiatrists in a hospital context or with other health professionals in the community. Educational psychologists work with children and adolescents in schools, colleges, and nurseries and in the home. They collaborate with parents and teachers to assess a child's progress at school and provide help and advice.

Counseling psychologists work with individuals, families, couples or groups to improve people's well being, alleviate distress and help them solve their own problems and take their own decisions.

Definition and General Remark

The word ***"psychology"*** is derived from two Greek words ***"psyche"*** and ***"logos".*** ''Psyche'' means ''soul'' and ''logos'' means ''the study''. Thus, originally psychology was defined as ***the study of "soul" or "spirit."*** But later on philosophers defined psyche as mind. Because of this, psychology began to be regarded as the study of an individual's mind or mental process. Through time, this later definition of

psychology was given up because the mind as an object does not exist and cannot be observed and measured objectively.

The most widely and accepted definition of psychology is: the science of behavior and mental processes of both humans and animals.

There are some concepts in this definition which need further explanations: The terms are "science" and "behavior."

Science is a group of related facts and principles of a particular subject. In science we collect related facts by the use of objective methods to develop a theory to explain those facts. From a given set of conditions, science helps us to predict future happenings.

Example. Biology explains how living things grow and develop. Anatomy describes the structure of human body. Physiology deals with the function of various parts and systems of the body. Similarly, psychology as a science deals systematically with human behavior, motives, feelings, emotions, thoughts and actions of men and women. Like other sciences, psychology discovers and explains the underlying laws and principles of behavior***. Its goals are describing, explaining, predicting and finally modifying human behavior.***

Behavior in its broader sense includes all types of human activities.

Example. Motor activities (Walking, speaking)

Cognitive activities (perceiving, remembering, thinking, reasoning)

Emotional activities (feeling happy, sad, angry, afraid).

Behavior is both mental and bodily.

Mental behaviors are thinking, reasoning, imagination and other mental experiences or processes.

Bodily behavior refers to the movements and actions of the body in response to a situation.

Behavior is the reaction of an individual to a particular environment. The environment exerts influence on individuals. That influence is called ***stimulus.*** The stimulus in turn arouses an activity from the individual and this is called the ***response***.

Example. A man may be admitted to a hospital for a surgical operation (stimulus).

The man feels frightened and worries because he is uncertain what may happen next (response). This stimulus - response combination constitutes the behavior of an individual.

The human behavior consists of physical responses, feelings, emotions and tensions, and all intellectual responses, perceiving, thinking, recalling, and reasoning.

Behavior shows growth and development from the early years of infancy to maturity and old age. Psychology as a science studies how behavior grows and develops from infancy to old age and also studies behavioral differences between people.

In general there are four major facts proposed in relation to the nature of behavior. These are:

-Behavior has a bodily basis;

-Behavior is dynamic;

-Behavior varies from person to person;
-Behavior is social.

Psychologists collect facts of behavior by means of objective methods such as observation and experiment and predict human behavior.

Example. A patient may react with anger if his movements are restricted in the ward. If the health professional has knowledge of scientific psychology, it is possible to predict and control the patient's behavior.

At times psychologists study animal behavior. The reasons are:
-The study of animal behavior helps to develop general laws of behavior that apply to all organisms.
-The study of animal behavior provides important clues to answering questions about human behavior.
-For ethical reasons it is sometimes difficult to conduct psychological experiments on human beings.

Major Perspectives in the Historical Development of Psychology

Psychology broke away from philosophy and physiology and emerged as a separate discipline over 100 years ago. In the last century, this young and fertile discipline went through a series of changes and expansions in both subject matter and research methods.

Early Perspectives of Psychology

Structuralism

Formal research in psychology began at the university of Leipzig Germany where Wilhelm Wundt founded the first psychological laboratory in 1879. Wundt is considered as the first psychologist and father of experimental psychology. He limited the subject matter of psychology to the study of conscious experience. The elements of conscious experience were considered to be of two kinds. These are:

Sensations: sights, sounds, tastes, smells and touch, which arise from stimulation of the sense organs;

Feelings: love, fear, joy, and so on.

He believed that all conscious experiences are merely intricate combinations of elemental sensations. Sensory knowledge is the building block of our intellect. For example, an experience such as meeting and recognizing an old friend in the street was thought to be composed of many independent sensations, feelings and images, which were drawn together and synthesized by the mind.

Functionalism

The American psychologist William James pioneered functionalism. It focused on what the mind does on the functions of mental activity and the role of behavior in allowing people to adapt to their environment.

Functionalism was strongly influenced by biology. The work and ideas of Charles Darwin had a great impact on the emergence of functional psychology. According to Darwin's theory of evolution, living organisms change and develop over time through a process of natural selection. Organisms whose characteristics were best suited to their environment survived and reproduced. While organisms whose characteristics were less adaptable died out.

Gestalt psychology

The leading proponents of the Gestalt view were the German psychologists Max Wertheimer, Kurt Kafka and Wolfgang Kohler. Instead of considering separate parts that make up thinking, Gestalt psychologists concentrated on the 'whole'. Their slogan is 'the whole is greater than the sum of its parts'. ''Gestalt'' means shape, form or configuration. Their belief was that the whole is different from the sum of its parts. In order to understand our environment we have to perceive it in its totality not in its individuality.

Psychoanalysis

The Viennese neurologist and psychologist Sigmund Freud (1856-1939) pioneered the psychoanalytic perspective. Freud said that conscious experiences are only the tip of the iceberg. Beneath the conscious experience is primitive biological urges that seek expression but which are in conflict with the norms and morality of the society. These unconscious motivations and conflicts have powerful influences on our conscious thoughts and actions. Therefore they are responsible for much of human behavior including physiological problems. According to Freud, all behavior whether normal or abnormal is influenced by the unconscious mind. This belief is called psychic determinism.

According to Freud the methods of studying the unconscious mind are:

a. Free association

In this method the psychoanalyst gives the client a word and asks to reply with the first word that comes to mind be it nonsense or irrelevant. The psychoanalyst makes associations and meanings between ideas, words, and thought. It is a projective technique to explore the client's unconscious thoughts.

b. Dream analysis based on case studies

The contents of dreams are analyzed for underlying or hidden motivations. Dreams are viewed as indication of what a person is truly feeling within the conscious mind. Freud said dreams are 'the royal road to the understanding of the unconscious.''

Behaviorism

John Watson (1878-1958) revolutionized psychology by changing the subject matter of psychology from the study of conscious experience to the study of behavior. Watson believed that the study of psychology should be about observable behavior and its aim should be to describe, predict, understand and control behavior.

Watson's focus on the study of observable behavior enabled to formulate clear hypotheses, which could be tested by experimentation. Watson's view of learning relied to a great extent on Pavlov's account of classical conditioning. Accordingly, it is possible to break down and analyze a certain behavior into stimulus-response units.

Much of the behaviorists' research into learning was carried out on animals, rather than humans; partly because animals were easy to obtain and greater control could be exercised over their environment, and partly because they accepted the idea that humans and animals are related both physiologically and behaviorally.

The Most Important Approaches (Schools) of Psychology

School of psychology	Description	Important contributors
Structuralism	Uses the method of introspection to identify the basic elements or "structures" of psychological experience	Wilhelm Wundt, Edward B. Titchener
Functionalism	Attempts to understand why animals and humans have developed the particular psychological aspects that they currently possess	William James
Psychodynamic	Focuses on the role of our unconscious thoughts, feelings, and memories and our early childhood experiences in determining behavior	Sigmund Freud, Carl Jung, Alfred Adler, Erik Erickson
Behaviorism	Based on the premise that it is not possible to objectively study the mind, and therefore that psychologists should limit their attention to the study of behavior itself	John B. Watson, B. F. Skinner
Cognitive	The study of mental processes, including perception, thinking, memory, and judgments	Hermann Ebbinghaus, Sir Frederic Bartlett, Jean Piaget
Social-cultural	The study of how the social situations and the cultures in which people find themselves influence thinking and behavior	Fritz Heider, Leon Festinger, Stanley Schachter

Recent Perspectives

The Biological Perspective

It states that behavior has a biological basis. The behavior of both people and animals should be considered in terms of biological functioning. Topics that are discussed in this perspective include:

-How the individual nerve cells are joined together?

-How heredity influences behavior?

The Cognitive Perspective

It focuses on the process that helps people to know, understand, and think about the world. This perspective explains how information in the memory is processed at different stages and how our thinking about the world influences our behavior.

The Behavioral Perspective

The 1904 Nobel Prize winner, the Russian physiologist and psychologist, Ivan Pavlov opened a new way of thinking for psychological investigations. His experiment on dogs enabled psychologists to explain certain behavior and certain differences among individuals as the result of learning.

Following the works of Pavlov, Thorndike, Watson behaviorism got strength. Through time, its principles and methods of study became an integral part of psychology. By the middle of the twentieth century, it was widely accepted that psychology was about the study of behavior rather than conscious experience.

The American psychologist B.F.Skinner refined and popularized behaviorism. He showed that the consequences of behavior provide the basic mechanism for predicting and shaping future behavior.

The Humanistic Perspective

It is a psychological approach that suggests that people are in control of their lives. This perspective assumes that people are naturally endowed with the capacity to make decisions about their lives and to control their behavior.

Humanistic psychologists claim that everyone has the capacity to develop to higher levels of maturity and realize his/her full potential if given the opportunity. The human being has free will to make decisions about his/her own life, rather than depending on societal standards.

Example. If a person chooses to lead an average life, it cannot be considered as worse compared to a person who has higher aspirations.

Some Career Paths in Psychology

Psychology field	Description	Career opportunities
Biopsychology and neuroscience	This field examines the physiological bases of behavior in animals and humans by studying the functioning of different brain areas and the effects of hormones and neurotransmitters on behavior.	Most biopsychologists work in research settings—for instance, at universities, for the federal government, and in private research labs.
Clinical and counseling psychology	These are the largest fields of psychology. The focus is on the assessment, diagnosis, causes, and treatment of mental disorders.	Clinical and counseling psychologists provide therapy to patients with the goal of improving their life experiences. They work in hospitals, schools, social agencies, and in private practice.
Cognitive psychology	This field uses sophisticated research methods, including reaction time and brain imaging to study memory, language, and thinking of humans.	Cognitive psychologists work primarily in research settings, although some (such as those who specialize in human-computer interactions) consult for businesses.
Forensic psychology	Forensic psychologists apply psychological principles to understand the behavior of judges, attorneys, courtroom juries, and others in the criminal justice system.	Forensic psychologists work in the criminal justice system. They may testify in court and may provide information about the reliability of eyewitness testimony and jury selection.
Health psychology	Health psychologists are concerned with understanding how biology, behavior, and the social situation influence health and illness.	Health psychologists work with medical professionals in clinical settings to promote better health, conduct research, and teach at universities.

Psychology field	Description	Career opportunities
Industrial-organizational and environmental psychology	Industrial-organizational psychology applies psychology to the workplace with the goal of improving the performance and well-being of employees.	There are a wide variety of career opportunities in these fields, generally working in businesses. These psychologists help select employees, evaluate employee performance, and examine the effects of different working conditions on behavior. They may also work to design equipment and environments that improve employee performance and reduce accidents.
Personality psychology	These psychologists study people and the differences among them. The goal is to develop theories that explain the psychological processes of individuals.	Most work in academic settings, but the skills of personality psychologists are also in demand in business— for instance, in advertising and marketing.
School and educational psychology	This field studies how people learn in school, the effectiveness of school programs, and the psychology of teaching.	School psychologists work in elementary and secondary schools or school district offices with students, teachers, parents, and administrators. They may assess children's psychological and learning problems.
Social and cross- cultural psychology	This field examines people's interactions with other people.	Many social psychologists work in marketing, advertising, organizational, systems design, and other applied

Activity. Read each of the following cases that describe works carried out by psychologists in the different subfields, and match them with the branches of psychology discussed below.

Case 1. The middle aged psychologist at the college of health sciences welcomed identical twins learning in the health officers program. The point of the interview is to examine similarities in the behavioral and personality traits of the twins. The interest of the psychologist is to compare twins who have had lived together almost all their lives with those who have been separated from birth. In line with this, the psychologist is seeking to determine the relative importance of heredity and experience on the behavior of the twins.

Case 2. Describing his/her childhood events, a health officer student disclosed his secretes which he did not tell previously to anyone. The psychologist listened attentively to the student and suggested him that his concern is one that is shared by many students in the college.

Experimental Psychology

Experimental psychologists generally use controlled laboratory experiments to pursue their study.

Basic topics studied include sensation, perception, learning, memory, problem solving, communication, emotion, motivation.

Experimental psychologists attempt to answer the following questions:

-What is the basis for love between a mother and her baby?

-Can animals think?

-What is the role of the brain in memory?

Experiments are made not only on human beings, but also on animals. This is because that animal research leads to human research that can give us insight into the behavior of our own species.

Physiological Psychology

This branch of psychology looks for explanations of behavior in the physiological structures of humans and animals. Some of the questions raised by physiological psychologists include:

-What physiological changes occur in people during sleep and dreaming?

-What is the relationship between the incidence of motorway accidents and changes in the physiological functions of the body at different times of the day?

Developmental Psychology

Its concern is about behavioral development over the entire life span. It is also concerned with psychological concepts, such as: learning, memory, motivation and thinking.

The following are questions raised by developmental psychologists:

-How soon can babies perceive depth?

-How do children develop the concept of the self?

-Is language acquisition only a question of biological maturation, learning or it has any relation to social interaction?

Personality Psychology

Some people are highly competitive and hostile. Some people tend to be relaxed and don't feel the pressure of time. The study of the relation between personality and behavior is an example of research in personality psychology. It studies individual differences in behavior and why people not react in a similar way to the same situation.

Social Psychology

Social psychology is a wide-ranging field of study. Among the topics that can be studied are: friendship formation, conflict, perception of other people, aggressiveness.

The particular interest of social psychologists is on the relevance of their research to human society, human problems in the group, the community, the nation and the world.

Clinical Psychology

It is the study, diagnosis and treatment of abnormal behavior. It looks for possible biological, educational and environmental causes of disorders. The aim is to change the environment that leads to disorder. Clinical psychologists give advice to community workers on how to handle psychological problems.

Other Branches of psychology are: educational psychology, industrial and organizational psychology, work psychology, military psychology, health psychology, environmental psychology, forensic psychology.

The Methods of Psychology

Definition and General Remark

The methods used by psychologists in their investigations are similar to the

methods used in other scientific fields. A feature of scientific method is that data are collected in an unbiased, objective way. There are three main ways in which objectivity can be maximized. This can be through operational definition, replication and control.

Operational definition is defining exactly what particular terms mean in that particular investigation. This enables to measure and quantify the variables under study and avoid ambiguity. One way to check the objectivity of findings is to see if they can be replicated. If similar results are yielded with the same or different participants and in different contexts objectivity of findings is maintained. This helps to construct a body of knowledge or theory.

In laboratory experiment, the experimenter manipulates an independent variable and measures its effect on a dependent variable and holds the influence of all other unwanted variables.

Example. A test of the effect of alcohol on driving ability would need to control other variables like previous experience or drinking history.

No one best method is available for studying all aspects of human behavior and thought. Each has advantages and limitations. In general psychological investigations attempts to:

-Describe mental and physical behavior;
-Explain the reasons for that behavior;
-Predict the circumstances under which it might occur again.

A variable is something that undergoes changes. It the variable in the research is, for example, intensity of the tone. There are two major types of variables. These are:

Independent variable: any factor whose change is expected to affect the event that is being studied.

Dependent variable: the event that is expected to change when the independent variable is altered.

Example. Suppose an epidemiologist wants to investigate the effect on tooth decay of the addition of fluoride to drinking water. The independent variable in this research design is addition of fluoride. Tooth decay is the dependent variable.

The Experimental Method

It is regarded as the method of choice. This enables to infer cause - effect relationship with reasonable confidence.

In experimental research method there are two groups. These are the experimental group and the control group. A group in an experiment that is exposed to the independent variable(s) under investigation is the experimental group. The group that receives similar treatment except for the critical independent variable(s) is called the control group.

Not all experiments take place in a lab setting. Some are conducted on street corners, subways, hospitals, schools, airports, offices.

The Survey Method

It is a method of getting information regarding peoples' characteristics, attitudes, opinions or behavior by asking them all the same question. Questioning

every household produces accurate information. Survey methods are often used alone. But sometimes they are used in connection with experiments. Survey can be oral - interview or written - questionnaire.

Interview allows the investigator to see the subjects.

Questionnaire takes less time to administer. Its advantage is to gather information from a large number of people.

Limitation: people sometimes give misleading answers either deliberately or accidentally; particularly if the concern is a touching area, such as sex, money or race relations. One-way to control this problem is by including several differently worded questions on the same topic.

TheCase Study(Clinical Method)

It is an intensive investigation of one or a few individuals usually with reference to single psychological phenomena. The unit of study can be a family, a group of delinquents and teenagers.

Case studies allow for a considerable depth of analysis. It is useful when it becomes unethical to use experimental method.

Naturalistic Observation

It is a method used to collect data by observing the overt behavior of an individual.

Example. Suppose we want to study whether men and women smile at each other more in a supermarket or at a car wash. The above methods all tell us nothing. To answer this question we have to visit a number of supermarkets and car washes and observe men and women.

Self- assessment questions:

1. What is the general importance of psychology?
2. Explain the term behavior by giving examples of your friend's behavior in the classroom, at the dinning hall and at the student lounge.
3. Why is psychology regarded as a science?
4. According to the behaviorists, what is the most important influence on the development of behavior?
5. List down the main school of thoughts in psychology in their chronological order.
6. Analyze research methods in psychology.

Sensation Perception Attention

At the end of this learning material the student is expected to:

-Distinguish between sensation and perception;
-Outline some factors which determine perception;
-Explain the gestalt laws of perception;
-Explain the different theories of perception.
-Explain the different kinds of attention.

Definition and General Remark

In this learning materiel we focus on the field of psychology concerned with the nature of information obtained through the senses and the way in which we interpret such information.

Information from the real world is received through our senses and processed to provide a basis for our interaction with the environment. The interpretation of this information within the brain results in three-dimensional perception.

Sensation and perception are fundamental topics because our behavior is so much a reflection of how we react to and interpret stimuli from the world around us.

Sensation and perception are the starting points for all other psychological processes. They supply the data we use for learning and remembering, for thinking and problem solving, for communicating with others, for experiencing emotions and for being aware of ourselves. Without sensation and perception we would not form thoughts or feelings.

Brainstorming activity. Read the following case and brainstorm the questions below it.

Bezawit is at her parent's home for the Easter vacation. It is a semester break. She is exhausted from campus life, intensive academic work and especially from the tasteless lunches at the campus cafeteria. But these thoughts were soon interrupted when she saw her mother carrying dorowat with injera (one of Ethiopian favorite dishes), on a tray and placed it at the center of the table. All family members were sitting and they were talking and laughing.. The smell of the dorowat reached Bezawit and soon she felt her stomach growl from hunger. The sight and voice of her family members around the table along with the smell and taste of the dorowat made Bezawit feel more comfortable and forget the tiresome college life.

Brainstorming questions

1. How different her feeling be if any one of Bezawit's senses were not functioning?
2. What would happen to Bezawit had she not listened to the conversion of her family members?
3. What would happen to Bezawit had she not feel her stomach growl or smell the dinner, or taste the food?

Basic Terms and Concepts Related to Sensation and Perception

To have a better understanding of the subject matter of sensation and perception, we need to define related basic terms.

Stimulus. It is a source of physical energy that produces a response in the sense organs. The energy could be sound waves, light waves, and heat pressure to which an organism is capable of responding. A sensation is a response to that energy by a sensory system. Stimulus and sensation have cause and effect relationship. The quality of a stimulus refers to the kind of sensation it produces.

Example. Color - visual stimulation;

Musical pitch - auditory stimulation.

The quantity of a stimulus refers to the amount of stimulus present.

Example. Brightness, loudness, smell.

Stimuli vary in both type and intensity. Different types of stimuli activate different sense organs.

Response: It is any reaction of an organism to or in the presence of a stimulus. The reaction could be muscular or glandular.

Sensation is the process by which an organism's sense organs respond to a stimulus. It is the process whereby stimulation of receptor cells (in the eyes, ears,

nose, mouth, and surface of the skin) sends nerve impulses to the brain. After reaching the brain they are registered as a touch, a sound, a taste, and a splash of color. Hence, sensation can be thought as an organism's first encounter with sensory stimuli.

Perception is the process whereby the brain interprets sensations, giving information order and meaning. It takes into account experiences stored in our memory, the context in which the sensation occurs and our internal state - our emotions and motivations. It is the process of forming hypotheses about what the senses tell us.

Example. Hearing sounds and seeing colors are sensory processes; whereas, listening sweet music and detecting depth in a two dimensional pictures are perceptual processes. Without sensation of some kind perception could not occur.

A branch of psychology called ***psychophysics*** studies the relationship between the intensity of a stimulus and its sensory response. In other words it studies the relationship between the physical nature of stimuli and people's sensory responses to them.

There are several factors that affect our perception. Some of these are:

Context and expectation

In an experiment by Bruner and Minturn (1955, cited by Baron), participants were shown sequences either of letters or of numbers, for example:

C D E F G H or 8 9 10 11 12

When perceived with a figure/number 13 that could be either B or 13, those who had seen the sequence or letters tended to perceive it as B, while those who had seen the numbers perceived it as 13. The context in which it was seen produced expectation and induced a particular set.

Motivation

Studies have shown the effects of motivation upon the way in which things are perceived. Solley and Haigh (1956, cited in Baron), for instance, asked children aged four to eight to draw pictures of Santa Claus during the month running up to Christmas. As Christmas approached, Santa Claus became larger, nearer, more elaborate, a more decorated costume and a bigger bag of presents. After Christmas, Santa shrank and his present bag all but disappeared.

Emotion

In a study by McGinnis (1949, cited in Baron), participants were presented with either neutral stimulus such as table apple chair or 'taboo' words. Each of these words was presented very briefly, then for increasing length of time. At the same time a measure of emotional response was taken. It was found that the taboo words had a higher recognition.

Values, Culture and Personality

There is evidence that suggests that an individual's value system may induce a set. Postman (1948, cited in Baron), rated participants on the Allport-Vernnon scale of values. The scale divides values into six categories. These are theoretical, social, economic, aesthetic, political and religious. The result showed that words, which are related to highly rated value categories, were found to be more easily perceived than lower-rated values. Cultural prejudices have an effect upon perception.

Absolute Threshold. It is the smallest intensity of a stimulus that must be present for it to be detected. For a stimulus to be detected by our sense organs it must become strong enough. The following research findings on absolute threshold are taken from the works of Galanter (1962) as cited in (Feldman, 1996)

Sight: a candle flame can be seen 30 miles away on a dark, clear night.

Hearing: the ticking of a watch can be heard 20 feet away under quiet conditions.

Taste: A teaspoon of sugar can be detected in nine liters of water.

Smell: A drop of perfume can be detected when one drop is present in a three-room apartment.

Touch: The falling of a bee's wing from a distance of one centimeter can be felt on a cheek.

DifferenceTthreshold. It is the smallest detectable difference between two stimuli. A noticeable difference depends on the value of the initial intensity of the stimulus.

Example. When the moon is seen in the late afternoon, it appears relatively dim. When it is seen in the dark, it seems quite bright.

Weber's Law: The law states that ***the just noticeable difference is in constant proportion to the intensity of an initial stimulus***. Weber's law in psychophysics explains the relationship between changes in the original value of a stimulus and the degree to which the change will be noticed.

Example. A person in a quiet room is more sensitive to the ringing of a telephone than a person in a noisy room. In order to produce the same amount of sensitivity in a noisy room, the ring has to be very loud.

SensoryAdaptation. It is an adjustment in sensory capacity following long period of exposure to stimuli. It is the tendency of receptor cells in the sense organs to respond less and less to a constant stimulus. Adaptation occurs as a result of prolonged exposure to stimuli, a change in the attitude and expectation of the individual.

Examples. Repeated hearing of a musical sound in a bar makes a person to adjust as if it were softer.

When you enter into the dormitory with a distinct odor, the smell is very noticeable at first, but soon it seems to fade.

One explanation for decline in sensitivity to sensory stimuli is the inability of the sensory nerve receptors to constantly carry messages to the brain. They stop reacting to constant stimulation. The sense of smell and touch adapt quickly. Pain adaptation is slower. However, sensory adaptation occurs with all the senses.

Theories Related to Sensation and Perception

Signal Detection Theory. This theory addresses the role of psychological factors in detecting stimuli.

Activity. Pose the following questions to your students so that they may identify psychological factors, which will enable them to answer the questions below.

-Is this person positive?

-Is the person lying?

-Is this athlete using drugs?

Several factors influence us how we answer such questions. For instance, physicians who are seeking to identify the presence of a tumor are influenced by their expectations, knowledge, and experience with patients. From this we can understand that the ability to detect a stimulus depends not only on the type and intensity of the stimulus but also on psychological factors.

The Gestalt Laws of Organization

In the perceptual process the senses work together to provide us with an integrated view and understanding of the world.

Perception is a constructive process by which we go beyond the stimuli that are presented to us. From what we sense in our environment, the brain constructs a meaningful situation.

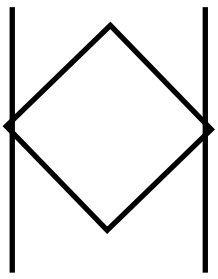
The gestalt laws of organization are principles that describe how we organize and construct pieces of information into meaningful wholes. They include: closure, proximity, similarity, and simplicity.

Closure:We perceive things by grouping them as complete figure rather than open and breaks. We tend to ignore the breaks in the figure below and concentrate on the overall form as a triangle.

Proximity. Things that are closer together are grouped together.

Similarity. Elements that are similar in appearance are grouped together.

Simplicity. When we observe a pattern, we perceive it in the most common straight forward manner. For example, most of us see the figure below as a square with lines on two sides, rather than as the block letter "W" on the top of the letter "M". We generally tend to choose and interpret the simple one.



According to Gestalt psychologists, perception of stimuli in our environment is not simply putting together individual elements. It requires an active, constructive process of the brain. It is when we put together bits and pieces of information into a whole that we can better understand and solve problems in our environment.

Figure-Ground Perception

It is the perceptual relationship between the object of focus (the figure) and the field (the ground). The figure has form or structure and appears to be in front of the

ground. The ground is seen as extending behind the figure. The relationship can be reversed by focusing on or attending to the ground rather than the figure.

Feature Analysis Theory

The theory is a more recent approach to the study of perception. According to feature analysis theory, to perceive an object in our environment, we first react to individual aspects such as, shape, pattern, object or scene. We start from these individual components and move to comprehend the overall nature of what we perceived.

Example. To perceive a letter in the English alphabet, we perceive vertical line, a diagonal line, and a half circle. In this process, the brain matches specific parts of the letter with what is already stored in our memory. It is after this match that we can identify the letter.

Directions in Perception

The processing of perception proceeds along two directions. These are top-down processing and bottom-up processing.

Top-Down Processing

The top-down processing of perception is guided by a higher-level of knowledge, experience, expectations, and motivations. Patterns can be recognized easily and rapidly, because we expect certain shapes to be found in certain locations.

Example. When we read a sentence, we perceive that sentence with the missing letters in it. This is because we had past experiences. Therefore, it is not important to decode the meaning of each word. If an additional word is inserted, we may not notice that it is there:

Example. STUDENTS ARE EXPECTED TO PUT OFF THEIR MOBILES BEFOR THEY ENTER THE THE LIBRARY.

In this example ‘the’ is often not noticed at all.

Our expectation also plays a role in what we are reading. If a student, for example, is reading a text in psychology material, he expects sentences from psychology not lines from a poem.

In the top-down processing, the context in which we perceive objects is important. The figure "I3”, for example, is perceived as the letter B in a row that consists of the letters A through F. The same figure can be perceived as the number 13 in a row that contains the numbers 10 through 14. Therefore, our perception of the figure is affected by our expectations about the two sequences.

Bottom-Up Processing

The bottom-up of perception consists of recognizing and processing information about the individual components of the stimuli. In the above mentioned example it may be difficult to recognize the sentence without being able to perceive the individual shapes that make up the letters. Therefore, partly perception requires the recognition of each separate letters.

Top-down and bottom-up processing occur simultaneously and interact with each other in our perception of the world around us.

Attention

Definition and General Remark

Attention is a general term referring to the selective aspects of perception which function so that any instant an organism focuses on certain features of the environment to the exclusion of other features.

A factor of importance in the study of perception is attention. Human beings are constantly encountered with stimuli from the environment in which they live; but they use only a very small portion of this information. Selective attention enables them to sort out and process this information.

In this operation we can distinguish between controlled and automatic processing. Controlled processing is serial; one thing is processed after another. Automatic processing is parallel. More than one processing operation can occur at a time. Difficult and unfamiliar tasks require controlled processing. Simple and familiar tasks can be processed automatically.

Factors which determine whether or not we pay attention to a stimulus are:

-***Intensity:*** a bright color will attract us more than a dull one.

-***Size:*** a large thing is more likely to catch our attention than something small.

-Duration of Repetition: a quickly running stimulus will not catch our attention as easily as one, which persists or is repeated.

-***Emotional Content***: a stimulus, which creates emotional feeling, attracts our attention more than a neutral one.

-***Suddenness or Novelty***: sudden stimulus is likely to catch our attention more easily than one we have been expecting.

-***Contrast***: contrasting stimulus will attract attention more easily than those, which are similar to each other.

-***Movement***: a stimulus, which moves, is more likely to attract attention than something stationary.

-**Activity**. Observe advertisements on the television. List the occasions and describe how the above factors are evident. Assess the effectiveness of these advertisements in attracting the attention of the public.

Self assessment questions

1. Briefly describe the differences between sensation and perception.
2. What is gestalt law of organization?
3. List two theories that explain pattern recognition. Which theory seems most satisfactory to you? Give reasons for your choice.
4. List the gestalt principles of perceptual organization.
5. Suppose you are at a dinner party with your friend. The fork, the spoon, knife and glasses all produce noisy sounds. What psychological factors influence the discussion between you and your friend?
6. List the factors which determine attention.

Memory

At the end of this learning material the student is expected to:

-Definition of memory;

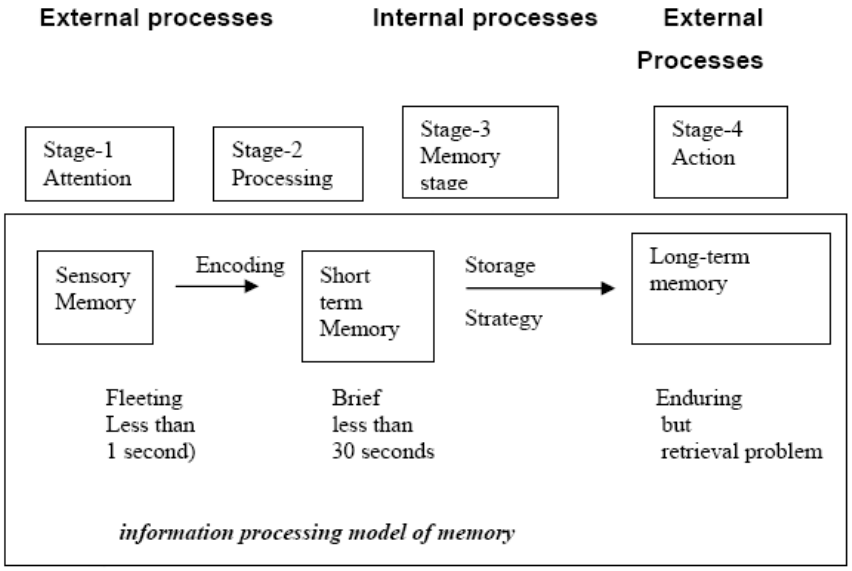
-Explain the functions of memory;
-Distinguish between kinds of memory.

Definition and General Remark

In psychology ***memory is the mental process in which information is encoded***, ***stored and retrieved***. Memory is the mental process with the help of which we can remember our past, regulate our daily life and planning our future.

The stage model of memory consists of separate stages. These are sensory memory, short-term memory and long-term memory storage stages. Information flows through the system with recoding operating at each stage.

The model below shows how information is acquired, stored and retrieved.



Sensory Memory Stage

It is immediate memory. Some psychologists call it the visual information store (VIS). Others call it iconic memory. For the auditory, it has been called an echoic store. Once the material has been selected by means of the immediate memory process (the iconic or echoic memories), it passes into short-term memory.

Short Term Memory (STM)

The second stage is sensory processing that involves the patient's preferred mode of sensory processing (visual, auditory, or motor manipulation) and sensory depicts. It is related to the ability to retain information just long enough to use it. It is the memory involved in retaining a telephone number just long enough to dial it after looking it in a directory.

Short term memory contained material which needed to be kept in store for not longer than 30 seconds. The capacity of this store is limited to seven, plus or minus two items, letters or even longer units of information like words or chunks.

Research findings show that correct recall was high after short intervals such as 3 or 6 seconds, but by 18 seconds interval it was possible to recall only about 10 percent correctly.

Long Term Memory (LTM)

This relates to the ability to retain information over almost indefinite period of time. Understanding of meanings are involved in the process of coding for long-term

memory. All kinds of knowledge and beliefs, objects and events, people and places, plans and skills are stored in LTM. Long-term memory involves organizing the information by using a preferred strategy.

Example. Imagery, association, rehearsal, and breaking the information into units are commonly used strategies to organize information in the long-term memory.

Long-term memories are enduring though there is a problem of remembering and retrieving the stored information at a later time. By expanding the already existing information and by the use of meaningful repetition we can easily recall and use information from the long-term memory.

Self-assessment questions

1. Briefly describe memory as a mental process.
2. What is long-term memory?
3. Explain the function of shot-term memory.
4. What is immediate memory?

Thinking. Language. Intelligence

At the end of this learning materiel the student is expected to:

-Describe and evaluate major approaches to thinking;
-Definition of language;
-Explain major concepts of intelligence;
-Outline some factors which determine intelligence;
-Explain the functions of aptitudes.

Definitions and General Remarks

Thinking

Thinking has been defined as ***the process involved in manipulating information***, ***either composed through the senses or stored in memory from previous experience, so as to be able to respond to the immediate situation.***

Theories of thinking

For Freud and the psychoanalysts, thinking is closely related to their view of basic human motives. For them, the basic human motive is the satisfaction of bodily needs. Where these needs are not fully satisfied, memory of them is brought into play. This memory is associated with the kind of excitation that actual food, warmth and get in touch with evoke. Some of the energy released is devoted to solving the problem, to changing the environment so that the food, the warm the get in touch with is obtained.

This is essentially unretional thinking, driven through emotional rather than through rational processes. Freud creates a distinction flanked by primary and secondary thought processes. While secondary thought embraces rational conscious thought of which we are normally aware, primary thought processes are normally unconscious. There seem to be three separate levels of thinking:

- Preconscious Thought, which comprises those thoughts and ideas which are not engaging our consciousness at the moment, to which we are currently not paying attention but which nevertheless exist for us.

- ***Consciou Thought***, to which we are currently paying attention and on which we are engaging our minds.

- ***Unconscious Thought***, which remains inaccessible to our consciousness but which nevertheless plays a part in determining our behavior.

Behaviorists found some difficulty in explaining thinking. It did not seem to accord well with their principle that all mental processes were essentially the forming of associations flanked by stimuli. Watson viewed thinking as sub vocal speech. The process of thinking inevitably involved inner language. This was a motor theory of thought.

Cognitive Approaches to thinking have attempted to examine the mental processes which occur throughout thinking. Miller recognized what they referred to as heuristic strategies. These were models which enabled them to simulate the method in which the mind solved problems. The complexities of a problem might be simplified through working out a series of rules of thumb. These could then be applied one at a time. Though this did not guarantee that a solution to the problem could be found, it reduced the problem to manageable proportions.

Activity. Pose the following questions to your students:

1. What is thinking?
2. Describe three levels of thinking for Freud.

Language

Language is a system of communication that uses symbols in a regular way to create meaning. Language is used for the transmission of information. Human language is the most complex behavior on the planet and at least as far as we know in the universe. Language involves both the ability to comprehend spoken and written words and to create communication in real time when we speak and write. Language is fundamental to our ability to think, and without it we would be nowhere near as intelligent we are.

The Components of Language

Language can be conceptualized in terms of sounds, meaning and the environmental factors that help us understand it.

Phonemes are the elementary sounds of our language.

Morphemes are the smallest units of meaning a language.

Syntax is the set of grammatical rules that control how words put together.

Activity. Pose the following questions to your students:

1. Describe the functions of language.
2. Why language is fundamental to our ability to think?

Intelligence

Intelligence has been defined in several different methods including logic, abstract thought, understanding, self-awareness, communication, learning, having emotional knowledge, retaining, planning, and problem solving. Intelligence is most widely studied in humans. ***It is a general mental capability that, among other things, involves the skill to cause, plan, solve problems, think abstractly, comprehend intricate ideas, learn quickly and learn from experience***. It is not merely book learning, a narrow academic ability, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings – «catching on», «making sense» of things, or «figuring out» what to do.

Individuals differ from one another in their skill to understand intricate ideas, to adapt effectively to the environment, to learn from experience, to engage in several forms of reasoning, to overcome obstacles through taking thought. Although these individual differences can be substantial, they are never entirely constant. A given person's intellectual performance will vary on different occasions, in different domains, as judged through different criteria. Concepts of «intelligence» are attempts to clarify and organize this intricate set of phenomena.

Intelligence theorists fall into two categories. In one group are those who argue for a «general intelligence» that characterizes a person's actions and thinking in all areas. Their critics consider that intelligence is composed of several separate types of aptitudes and abilities, and that a person who excels in one area will not necessarily excel in all areas.

An Aptitude

An aptitude is a component of a competency to do a certain kind of work at a certain level, which can also be measured "talent". Aptitudes may be physical or mental. Aptitude is not knowledge, understanding, learned or acquired abilities, skills or attitude. The innate nature of aptitude is in contrast to achievement, which represents knowledge or skill that is gained.

Aptitude and intelligence quotient are related, and in some methods opposite views of human mental skill. Whereas intelligence quotient sees intelligence as being a single measurable characteristic affecting all mental skill, aptitude refers to one of several different characteristics which can be independent of each other, such as aptitude for military flight, air traffic control, or computer programming.

Self-assessment questions

1. Evaluate the functions of thinking;
2. Describe the components of language;
2. Describe the theories of intelligence;
3. What is aptitude?

Motivation and Emotion

At the end of this learning materiel the student is expected to:

- Distinguish between the different theoretical approaches to the understanding of motivation;
- Explain the physiological basis of emotion;
- Explain the functions of emotions;
- List down emotion types and give comments;
- Differentiate emotional theories.

Definition and General Remark

Motivation

Motivation is the factor that directs and energizes the behavior of humans and other organisms.

The study of motivation answers the following questions:

- Why do people behave as they do?

- Why does behavior take one form and not another?
- What makes people behave differently or similarly?
- How can we motivate people to behave in particular ways, such as eating certain foods, quitting smoking, or engaging in safer sex practices?

Theories of Motivation

There are different conceptual approaches to the study of motivation. They differ in their focus on biological factors, cognitive factors, social factors.

The Instinc tApproach to Motivation

This theory states that motivation is the result of an inborn, biologically determined pattern of behavior. According to this approach, people and animals are born with programmed sets of behavior essential to their survival.

Example. Sex - instinct for reproduction

There is a problem of clearly identifying the primary instincts because of their variety and complexities. Much of human behavior is learned not instinctual.

Drive Reduction Approach to Motivation

This theory suggests that when people lack some basic biological requirements such as water and food, a drive to obtain these requirements is produced. A drive is tension, arousal that pushes behavior in order to fulfill some need. Primary drives are related to biological needs of the body.

Example. Hunger, thirst, sleepiness, sex.

Secondary drives are related to prior experience and learning without the fulfillment of any biological needs.

Example. Motivation for academic achievement.

An organism tries to maintain an internal biological balance, which is called ***homeostasis.***

Example. Except sexual behavior, most of the basic needs of life are to maintain balance.

We show some kind of behavior simply for curiosity. The behavior may not be related to biological balance.

Example. Many of us spend the whole day in solving puzzles, which are not directly related to the satisfaction of biological drives.

Arousal Approach to Motivation

According to this approach, each of us tries to maintain a certain level of stimulation and anxiety. In arousal approaches if the level of stimulation and activity are too low, we will try to increase them by seeking stimulation. People differ in their optimal level of arousal.

Activity. Ask your students how much stimulation they need to do an activity in their everyday life.

Incentive Approach to Motivation

This approach attempts to explain motivation in terms of the nature of the external stimuli, incentives that direct and energize behavior. According to this view, properties of external stimuli are major causes for a person's motivation.

Example. After eating our meal, we choose to eat a sweet cake. Such behavior is motivated by the desert itself but not to satisfy internal drives.

Drives - push factor - and incentives - pull factor - work together in motivating behavior.

Cognitive Approach to Motivation

This approach focuses on the role of our thought, expectations, and understanding of the world.

Example. The degree to which we are motivated to study hard depends upon our expectations for good grades and the value we place on getting good grades. If both expectations and value are high, we will be motivated to study hard; but if either one is low, our motivation to study will be relatively lower.

In line with this approach, there are two forms of motivations.

Intrinsic motivation. It is motivation by which people participate in an activity for their own enjoyment, not for the reward it will bring. It enables to work hard, produce higher quality work and be perseverant. Some psychologists argue that providing rewards for desirable behavior may cause intrinsic motivation to decline.

Extrinsic motivation. It causes us to something for a tangible reward.

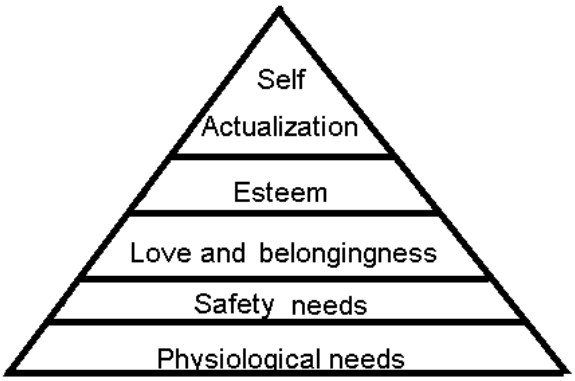
Activity. Brainstorm the class on the following problem - which strategy is better?

-Offering children monetary rewards for scoring good results at school.

-Reminding children on the importance of learning would bring desirable behavioral change.

Maslow's Motivational Theory

Different motivational needs are arranged in a hierarchy in a pyramidal shape. The more basic needs are at the bottom and the higher level needs are at the top. Before higher ordered needs are satisfied in the
hierarchy, the primary needs must be satisfied.



Abraham Maslow's Hierarchy of Needs

Physiological needs are based on body needs or tissue needs - food, water, avoidance of noxious stimulation. ***Security need*** is a need for sense of confidence, safety, and freedom from fear or anxiety, particularly with respect to fulfilling ones present and future needs. ***Love and belongingness needs*** include the need to obtain and give affection and contributing to members of some group or society. ***Esteem need*** relates to the development of a sense of worth by knowing that others are aware of one's competence and value.

Self-actualization is a state of self- fulfillment in which people realize their highest potential. The concept of self- actualization is applicable not only to few well-known individuals. In its broader sense it can happen to:

-A parent with excellent nurturing skills;

-A teacher that maximizes students' opportunities for success;

-A health professional who works hard to alleviate health problems of the country.

Activity. Discuss the following points with your students.

-If people are hungry, their first interest will be obtaining food, not love and self-esteem.

-Describe characteristics and contributions of well-known individuals in our society. According to your view, are they self-actualized personalities?

-Do you think that you have reached the level of self-actualization at this stage?

Achievement Motivation Theory

Achievement is a stable, learned characteristic in which satisfaction is obtained by striving for and attaining a level of excellence. People with high achievement motivation tend to compete against some standards and prove themselves successful. They tend to choose tasks that are of intermediate difficulty. People with low achievement motivation tend to be motivated primarily by a desire to avoid failure. As a result they choose easy tasks.

The outcome of high achievement motivation is generally positive. Research shows that high achievement motivation is associated with future economic and occupational success.

Activity. Brainstorm the class by posing the following questions.

-Do different cultures bear differences in achievement motivation?

-Is there a gender difference in achievement motivation?

-How can we foster achievement motivation in the minds of children?

The different approaches are complementary rather than contradictory. It is useful to employ different approaches simultaneously in order to understand and explain the motivational aspects of behavior.

Emotions

Definition and General Remark

Emotions are feelings such as happiness, despair, and sorrow that generally have both physiological and cognitive elements influencing behavior. While motives are internally caused, emotions are responses to an external stimulus.

Example. Physiological elements - heart rate increases, jumping for joy; cognitive elements - understanding and evaluating of the meaning of the act we do when we are happy.

There are a number of components of emotion. Some of these are:

-The perception of the emotion-arousing stimuli (an armed robber entering a bank).

-Subjective feeling or experience of emotion (pleasant/unpleasant).

-Involuntary physiological changes of the body's internal balance (arousal/ depression).

-External bodily changes (facial/posture).

-Cognitive factors, awareness of situation, previous experience, memory (seen people killed).

-Voluntary behavioral consequences; response to the stimulus (do as the robbery says, because he has the gun).

Controversies Regarding Emotions

-Emotional responses come first and then we try to understand them.

-People first develop cognition about situations and then react emotionally.

According to Darwin, human beings are not the only species that has emotions. Animals too, show fear, rage, and possibly love. Darwin suggested that there are specific, fundamental emotions that find expressions in the species.

Example. Swans mourn hopelessly at the death of a male.

Some research findings suggest that there is gender difference with respect to emotions. Women tend to experience emotions more intensely and expressing more readily than men. This difference is attributed to innate biological factor, societal expectations for men and women.

The Functions of Emotions

Preparing us for action

Example. If we see an angry dog running toward us, the sympathetic division of the autonomic nervous system prepares us for emergency action.

Shaping our future behavior

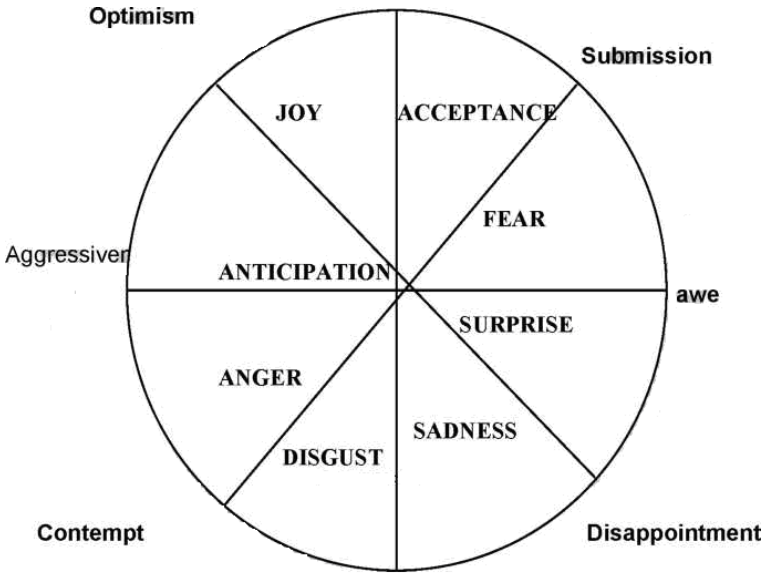
Example. When we encounter a threatening dog some other time, the previous experience teaches us to avoid an incoming danger.

Shaping us to regulate social interaction

Example. Verbal and non-verbal ways of communicating emotions help us to understand the behavior of another person. Then we modify our actions.

Types of Emotions

Plutchik (1984) after combining a large set of emotions came up with eight different fundamental emotions. These are joy, acceptance, fear, surprise, sadness, disgust, anger, and anticipation



Fundamental Emotion Types and their Combinations

From the figure above the following inferences can be made.

-Two emotion combinations are formed from primary emotions.

-Emotions nearer one another in the circle are more closely related.

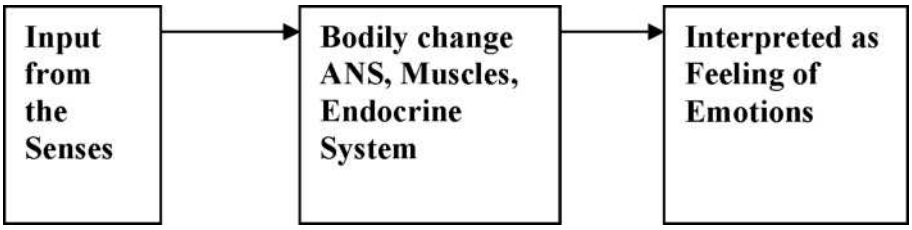
-Emotions opposite to each other are conceptually opposite.

Human emotions are much more than eight types. These eight types of emotions are not equally important across all cultures.

Theories of Emotion

The James-Lange Theory

The theory states that emotional experience is a reaction to instinctive bodily events that occur as a response to some situation or event in the environment. We feel sorry because we cry. We feel angry because we strike. We feel afraid because we tremble.

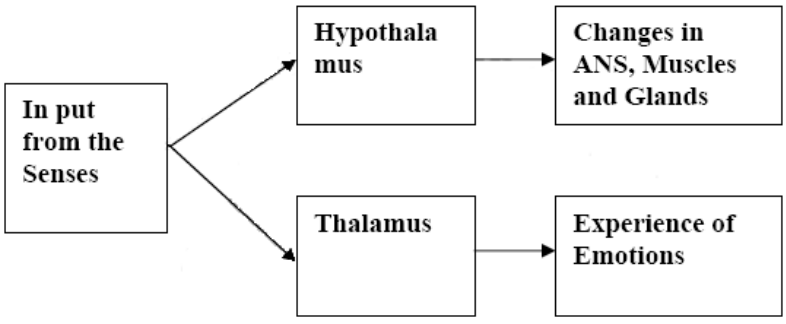


The James-Lang Theory of Emotion

James and Lang proposed that human beings experience emotions as a result of physiological changes that produce specific sensations. The brain interprets the sensations as particular kinds of emotional experiences.

The Cannon-Bard Theory

The theory states that both physiological and emotional arousals are produced simultaneously by the same nerve impulse. According to this theory. emotion-inducing stimulus is perceived. The thalamus is the initial site of the emotional response. Then the thalamus sends a signal to the autonomic nervous system and communicates a message to the cerebral cortex regarding the nature of the emotion being experienced.



The Cannon-Bard Theory of Emotion

Recent research evidences suggest that it is the hypothalamus and the limbic system and not the thalamus that play a major role in emotional experiences.

The Schachter-Single Theory

The theory proposes that a non-specific kind of physiological arousal and the meaning we attach to environmental cues determine emotions jointly.

The theory emphasizes that we identify the type of emotion we are experiencing by observing our environment and comparing ourselves with others.

Some research findings suggest that physiological arousal may or may not always account for an individual's emotional state.

Example. Some drugs invariably produce depression as a side effect no matter what the nature of the situation is.

The theory indicated the necessity of appraising our surroundings in case the source for physiological arousal is not clearly understood.

Emotions are complex phenomena. No single theory has been able to fully explain all facets of emotional experiences.

Expression of Emotions

Non-verbal behavior is a major means of communicating and revealing people's emotions. The non- verbal behavior communicates using several channels or paths. These are: facial expressions, eye contact, bodily movements, tone voice, positioning of the eyebrows.

From all these ways, facial expressions represent the primary means of communicating emotional states. ***Facial expression communicates the following six most distinctively identified basic emotions: happiness, anger, sadness, surprise, disgust, fear***.

Members of the human race regardless of the situation express these six emotions universally. The facial-affect program hypothesis assumes that each primary emotion is universally present at birth.

Self assessment questions

1. Can traits such as the need for achievement, need for power, and need for affiliation be used to select workers for jobs?
2. What is meant by the term homeostatic motivation?
3. Give your comments on the different theoretical approaches to the understanding of motivation.
4. What purpose do emotions serve in our life?

Psychology of Personality

At the end of this learning materiel the student is expected to:

-Describe and evaluate the different theories of personality

-Assess the relevance of different techniques used in the study of personality.

Definition and General Remark

Man's interest in personality is as old as his interest in the supernatural. Thus some ideas about personality may be found in primitive customs, myths and superstitions as well as in all the great religions of the world. In Literature, since the days of the great poetry, character writers have presented interesting personality types.

Psychology of personality, in a sense, is very old and at the same time, has a brief history. In the last three decades, however, there has been a very rapid

development in this field with regard to concepts, techniques, findings, applications, publications and number of works.

The layman may identify personality with externals of an individual, his looks, voice, dress, manners and gestures. We say somebody has a wonderful personality. The externals or physique and appearance constitute only one factor in one's personality: They do not constitute the whole thing.

Like other abstract terms defining personality is difficult. There are various definitions of personality. Allport, for example, has listed fifty definitions, including one of his own.

Personality is the total quality of an individual's behavior as it is shown in his habits of thinking, in his attitudes, interests, his manner of acting and his personal philosophy of life. It is the totality of his being. It includes his physical, mental, emotional and temperamental makeup and how it shows itself in behavior.

These various components of personality do not stand apart from each other. They are interconnected and as a result of this integration gave rise to a characteristic behavior pattern or ***quality called personality***. Some of these aspects may be given more weight than others and play more vital role in the development of one's personality.

These variations cause differences in personality from one individual to another.

When we study the field of personality psychology, in general, four areas are observed. These are theory, structure, development and dynamics.

Theory

It is a body of knowledge, which psychologists use to explain complex concepts in the study of personality.

Psychologists consider a number of approaches to the study of personality.

Structure

It is anatomy of personality with basic dispositions and interrelationships of different elements of personality. These personality structures are enduring and stable aspects of personality.

Development

Individuals' are different from each other even at birth, in physical appearance or temperament. The differences become more complex with increasing age and interaction with the environment.

Dynamics

The dynamic aspect of personality is concerned with the meaning and function of behavior. It looks for the purpose or the objective of an act, why the individual behaves the way he/she does.

There are three basic factors, which have to be considered in describing personality. These are:

- ***The internal*** **aspects:** these are feelings, the physiological systems, glands and inherently determined physical features.
- ***The social situation*****:** they include the influence of the family and other groups to which one belongs, the influence of customs, traditions and culture.

- ***The reactions or behavior:*** they are results from the interaction of the individual and the stimuli from the environment.

Personality is a dynamic growing thing. It grows in a social setup, through social experiences and continual adjustment to the environment.

There are three main factors that contribute to differences in personality. These are:

1. ***The physiological factors***. These include: the physique of the individual (his size, strength, looks); physical appearances and deficiencies and how other people react to these characteristics, endocrine glands production of hormones.

2. ***The environmental or social factors***. Reactions of other people and reactions to other people.

Examples. 1. Relationships in the home and the family, the influence of school. An atmosphere of peace, love, mutual understanding at home develops self-confidence and security. Repressive home atmosphere will result rebellious or dependence as personality traits. 2. Personality of the teacher, richness of the curriculum, the presence or absence of curricula activities, methods of teaching affect the child's personality.

3. ***Mental or psychological factors*** include motives, interests, activities, will and character, intellectual capacities, reasoning, attention, perception and imagination.

Theories of Personality

Galena's Theory of Temperament

The theory is based on Hypocrite's doctrine. Hippcrates about 400 BC. thought that people could be classified into four types. Each of these types was connected with certain types of personality traits. These are:

Sanguine - activity and rushness;
Phlegmatic - slowness and stability;
Choleric - ambitiousness, industrious;
Melancholic - pessimism and reflectiveness.

Modern theories of personality, however, show that human personality is not simply combination of four qualities. Hippocrates's temperament theory related biological characteristics to personality traits.

Galton's Individual Psychology

It was a step to the development of personality tests. The first group administered intelligence test the 'army alpha' was developed which helped to classify and screen soldiers during the First World War.

Activity

1. Suppose you were asked to write a letter describing yourself to stranger. How could you paint an accurate self-portrait of yourself in words? You may begin with simple facts.

Example. I am out going or shy; I am aggressive or timid; I am emotional or restrained.

Question: Do you think these traits will still describe you in the coming ten years?

Do your thinking and acting change in time?

2. Psychologists who study personality ask two key questions

Question 1 Why don't all people react in the same way to the same encounter?

Examples a. When meeting with a group of strangers one finds it easy to start conversation, while another feels uncomfortable and shy? **b** One student begins to work out assignment promptly, another puts off until the last minute.

Psychologists have given a variety of answers to the above questions. Some focus on the influence of early life experiences and childhood conflicts. Others stress on the influence of people's biological makeup. Others stress on the influence of learning.

Question 2. Do individual differences have power in shaping behavior? Do shyness, friendliness, punctuality exert a strong impact on behavior. Do they cause people to act in a certain way?

Psychoanalytic Theory

It is general and best-known theory of personality.

The greatest figure in psychoanalytic theory is Sigmund Freud (1856-1939). All psychoanalytic theories have two themes in common. They are concerned with powerful but largely unconscious motivations believed to exist in every human being. This school emphasizes on childhood experiences as critically important in shaping adult personality. Human personality is governed by conflict between opposing force, anxiety over unacceptable motives and defense mechanisms that develop to prevent anxiety from becoming too great.

Freud's Assumption about the Unconscious

-The unconscious is the major motivating force behind human behavior.

-The unconscious are processes which are totally unaware and which are incapable of becoming conscious unless special methods of psychoanalysis are used.

-These processes lie buried deep down in the hidden recesses of our mind below the level of consciousness.

- The unconscious includes all forgotten past experiences our repressed wishes and desires, our fears and phobias for which we do not know the reasons.

- Much of what we say and do is either to find some socially acceptable way of expressing unconscious impulses or an effort to keep those impulses from being known by others.

- Even trivial words and actions often have deeper meanings in psychoanalysis.

Example. According to psychoanalysts slips of the tongue, forgetfulness, mislaying objects, mispronunciation of a name, attempting at making a joke are all signs of unconscious drives, wishes and conflicts.

Personality Structure

Freud divided the human mind into three separate but interacting elements. They are not totally separate parts. They are not physical divisions of the brain; instead they are names given to psychological forces and hypothetical concepts created by Freud to explain his theory. The existence of these structures is inferred from the ways that people behave in their lives.

The Id. It is the reservoir of psychic energy. It is the storehouse of biological drives that arise from our needs for food, water, warmth, sexual gratification and

avoidance of pain. It is inborn. It is governed by the pleasure principle - the principle of ***hedonism***. The id has no link to objective reality

The Ego. It begins to develop soon after birth, but does not become apparent until the age of about six months. It serves as a mediator between the id impulse and reality. Unlike the id, the ego is conscious. It operates according to the reality principle. Satisfaction of biological needs is not given up; but reality is taken into account to satisfy these biological needs.

The Super Ego. Through the socialization process the child learns the entire dos and don'ts. Like the id, the superego is not attentive to reality, nor does it differentiate between desires and actions. It constantly commands that sexual and other biological urges should be stopped and pleasure is postponed according to the ideals and morality of society. The super ego has two main functions based on reinforcement processes. These are:

For good behavior - The super ego rewards;

Consequence - feeling of pride and self-esteem.

For bad behavior - The super ego uses punishment;

Consequence - feeling of guilt and inferiority.

According to Freud the superego is harsh and punitive taskmaster. It wants the person to be perfect.

Alfred Adler's Individual Psychology

The basic idea of individual psychology is that human beings have an innate social interest and are cooperative and interested in the welfare of other people. There are three concepts in Adler's individual psychology.

Striving for Superiority.

It is basic human tendency. Superiority for Adler is not necessarily mean power over others or competitive success. It refers to a more general goal of perfection and self-realization. Human beings, therefore, constantly strive to move upward.

Inferiority. Individuals are in constant efforts to overcome feelings of inferiority. Inferiority can be physical organ deficit, psychological or social. Superiority complex and inferiority complex are extreme tendencies. Superiority complex is overestimation and inferiority complex is underestimation of oneself.

Style of life. It refers to distinctive personality that each of us develop in response to our inferiorities. Refers to uniqueness, formed at the age of five that characterizes the person throughout life and becomes the distinguishing feature of the personality.

Adler`s theory presents a positive image of human nature and its potential to grow. Human beings are motivated by social interest to overcome inferiority and attain perfection.

Trait Theories

A trait is defined as any relatively enduring way in which one individual differs from another. Three assumptions are included in this definition.

1. Personality traits are relatively stable over time.

Example. A person who is shy at parties at age twenty is likely still to be shy at party five, ten, even twenty years later. Research evidence supports this view.

James Conley (1985), for example, compared the personality traits of several hundred adults at three different times in their lives. He discovered that extraversion, neuroticism and impulse control did not showed major change over a forty-five years period.

2. Personality traits are consistent over time.

Example. A person who is domineering at work is likely to be domineering at home, at parties or other settings. The assumption here is that on average people will act in the same way in many different situations. Research, too, supported this view. Nancy Cantor (1985), for example, found that college freshmen students used consistent strategies to pursue in their goals to get good grades and making friends. Individual differences are the result of differences in the strength, number and combination of traits. No two individuals are alike, but the differences are largely a matter of degree.

3. Extroversion – introversion dimension

Example. Everyone can be classified as more or less sociable. But sociability can be seen as a continuum with two extremes. Most people fall between these two extremes.

AllPort's Trait Approach

Gordon W, Allport (1936), searched for words that could describe people in a dictionary and found about 18,000 different words. After simplifying his descriptions, he came up with three kinds of traits.

Activity. Try to list down as many words as possible that are used in our society to describe people's personality.

Cardinal traits. It is a single trait that directs a major portion of a person's behavior.

Example. A person consumed by ambition or by greed would be characterized by a cardinal trait.

The 16th c. Italian political theorist Nicholo Machiavell is usually taken as an example. Nowadays, a person who is persistently manipulating others for his own political ambition is considered as having Machiavellian type personality.

Allport says cardinal traits are rare. Most individuals do not have one predominant trait. Instead they have combinations of different trait.

Central traits. It is based on life experiences. They are unified together and manifested in a person's behavior.

Example. For the Americans General Collin Powell, the first black American to be chief of staff, might be said to have central traits having ambition, achievement and service to his country. Every society has public figures possessing central traits.
Activity. Encourage your students to identify personalities with important central traits in society.

Secondary traits. They are characteristic modes of behavior that are less important than central traits. They are seen in few situations.

Example. Tastes and preferences for certain foods or styles of music are secondary traits.

Cattel concluded that personality is composed of ***sixteen primary or source traits. These traits are opposing tendencies.***

1.	Reserved	Out going
2.	Less intelligent	More intelligent
3.	Stable, ego strength	Emotionality/ neuroticism
4.	Humble	Assertive
5.	Sober	Happy-go-lucky
6.	Expedient	Conscientious
7.	Shy	Venturesome
8.	Tough-minded	Tender-minded
9.	Trusting	Suspicious
10.	Practical	Imaginative
11.	Forthright	Shrewd
12.	Placid	Apprehensive
13.	Conservative	Experimenting
14.	Group-dependent	Self-sufficient
15.	Undisciplined	Controlled
16.	Relaxed	Tense

To Cattell, trait is structure of the personality inferred from behavior in different situations. He classified traits into ***four categories***. These are:

Common traits. These are traits found widely distributed in the general population or among all groups - honesty, aggression, cooperation.

Unique traits. These are traits possessed by particular persons as temperamental traits and emotional reactions.

Surface traits. These are traits which can be easily recognized by overt manifestations of behavior - curiosity, integrity, tactfulness, dependability.

Source traits. These are the underlying structure or sources that determine the behavior of the individual. They are inferred from behavior. Dominance and emotionality are source traits.

Eysenck's Dimensions of Personality

Eysenck reduced personality traits into the following major dimensions – extraversion and introversion.

The followings are sample items taken from Eysenck's questionnaire to differentiate people according to the dimensions.

	Yes	No
Do you usually take the initiative in making new friends?		
Do ideas run through your head so that you cannot sleep?		
Are you inclined to keep in the background on social occasions?		
Are you inclined to be moody?		
Do you very much like good food?		
When you get annoyed do you need someone friendly to take to about it?		
Do you often make up your mind too late?		

Eysenck hypothesized two explanations why people show different traits. Extroverts have a naturally low level of arousal in the cortex of the brain. The introverts in contrast, already have a naturally high level of cortical arousal. From these two hypotheses, it was found that:

-The introverts take longer time to fall asleep.
-The introverts are more sensitive to pain than extraverts, suggesting that their brains are somehow more alert.
-Alcohol, which causes cortical arousal makes introverts more extraverted.
-Introverts usually do better in school than extraverts, particularly in higher-level subjects.
-Introverts prefer studying in quiet places with few interruptions.
-Introverts tend to be more careful in their activity.
-Extraverts are more likely to drop out of college for academic reasons than introverts are.

Research findings indicate that inherited biological factors do seem to make a major contribution to individual differences along the extraversion - introversion dimension of personality.

The New Trend

Recent research findings indicate that people of different ages, different walks of life, and even different cultures repeatedly and consistently refer to five major dimensions of personality. These are sometimes called the ***Big five***. Many personality psychologists agree that the development of the Big five is a major scientific progress in the study of personality.

The Big Five Personality Dimensions

No	Dimensions of personality	Traits
1	Extraversion	Socially active, assertive, outgoing, talkative - the opposite of shy.
2	Neuroticism	Emotionally unstable, anxiety, worry, fear, distress, poor emotional control, irritable, hypersensitive-the opposite of well adjusted.
3	Agreeableness	Helpful, cooperative, friendly, caring, nurturing - the opposite of hostile and self-centered.
4	Conscientiousness	Achievement oriented, dependable, responsible, prudent, hardworking, self controlled - the opposite of impulsive.
5	Openness to experience	Curious, imaginative, creative, original, intellectually adventure some, flexible - the opposite of rigidity.

Humanistic Approaches to Personality.

The major proponent of humanistic theory is Carl Rogers. The theory emphasized that people have natural tendency to grow to higher levels of functioning. Rogers suggested that people have a universal need to be loved and respected by others. To have positive regard for ourselves, we rely on the value others attach to us.

A balance between the individual's self-concept and opinion of others is important for healthy personality development. If the discrepancy between the individual's self-concept and the opinion of others is great, it will lead to psychological disturbances such as anxiety. An attitude of acceptance respect and support from friends, a sponsor or any other significant person allows people the opportunity to grow cognitively and emotionally and to develop more realistic self-concept.

For humanistic psychologists the final goal of personality growth is self-actualization. ***Self-actualization is a state of self-fulfillment in which people realize their highest potential***. A self-actualized person is one, who works hard, realizes his full potential and happens what he wants to be.

Activity. Ask your students to mention the names who achieved great success, happiness and fulfillment in their lives and let them describe the achievements.

Personality Assessment

Personality assessment means judging, evaluation and measurement of personality traits or the general personality pattern possessed by an individual.

Personality is a complex thing and it varies from person to person. It is very difficult to form a correct idea of one's personality by one method or technique. To have a good picture of an individual's personality applying combination of different assessment techniques is advantageous. There are a number of procedures and techniques that can be used for proper evaluation.

Psychologists frequently use tests to obtain information about clients. There are a number of approaches. The three commonly used approaches to study personality are:

- What the individual says about himself (self report inventories)
- What others say about the individual (socio metric inventories)
- What the individual does in a particular kind of situation (observational techniques)

Self Report Inventories (Tests)

It is the quickest method. It is the least expensive method. Because just as physicians draw a small sample of blood in order to test it, psychologists use self report measures to ask people about a relatively small sample of their behavior.

Psychologists who favor a trait approach to personality have developed self-report tests. Suppose we want to construct a test to study conscientiousness which is one of the Big five personality traits. As we have seen this trait involves, achievement orientation, dependability and a sense of responsibility. The following sample items are meant to measure the trait.

I always make sure I finish the project I start - Yes/No/Cannot say

If someone gives me a job to do, I feel an obligation to do it well – Yes/No/Cannot say

I am very careful and meticulous – Yes/No/Cannot say.

The Interview

It is the oldest and the most common technique for assessing personality. The interviewer must display such attitudes as worth involvement, interest, and commitment during interview. It helps to communicate a feeling of empathy or understanding to the person being interviewed. Good interviewers are calm, relaxed, and confident. The interview technique gives unlimited opportunity to explore any area that the interviewer believes will aid in the assessment of personality.

Behavioral Assessment

It is based on the assumption that situations play an important role in behavior, so that human behavior can be measured only within the context in which they occur. Behavioral assessment may be carried out naturalistically by observing people in their setting, in the work place, at home or in school. Behavioral assessment can take place in the laboratory under controlled conditions in which a psychologist or any other researcher sets up a situation and observes an individual's behavior.

An observer might record: the number of social contacts an individual makes; the number of questions a student asks; the amount of time spent working. Observation must be objective, carried for several days and done by more than one person.

Generally behaviorists have three goals:

-Identifying specific situations that trigger or cause the problem behavior;

-Describing the problem behaviors in detail and know what they result and how severe they are;

-Identifying environmental consequences that might be reinforcing an undesirable response, consequences that could be changed to help alleviate the problem.

Case Study

It is an in-depth study of personality. In a case study we integrate the information that we obtained from different sources about the individual. We can get information about the individual`s parents and grandparents, his/ her home background, medical history, educational background, friendship, marital life, professional and other related things.

Self assessment questions

- Briefly explain some ways in which psychologists have defined personality.
- What do you understand by type and trait approaches to the study of personality.
- Briefly explain the nature and function of the major parts of the personality proposed by Freud.
- Outline Allport's views of the nature of personality traits. Refer to cardinal traits and central traits.
- Evaluate Roger's self-theory.

GLOSSARY

Army-Alpha tests: Tests of intelligence developed for use in screening recruits for the U.S. Army in world war one.

Autism: The tendency to be absorbed in oneself.

Behavior: A general term covering acts, activities, responses, reactions, movements, processes, operations, in short, any measurable responses of an organism.

Chromosomes: Microscopic body in the nucleus of a cell that carry the genes.

Cognition: A broad term, which has been traditionally used to refer to such activities as thinking, conceiving, reasoning, etc.

Conditioning: A general term for a set of empirical concepts, particularly those that specify the conditions under which associative learning takes place.

Consciousness: Having sensations and perceptions, reacting to stimuli, having feelings and emotions, having thoughts, ideas, plans and images.

Counseling: A generic term that is used to cover the several processes of interviewing, testing, guiding, advising, etc. designed to help an individual solve problems.

Desensitization: Generally any decrease in reactivity or sensitivity.

Environment: The total physical and social surrounding of an individual organism.

Foundling home: An abandoned child of unknown parents who is found by somebody.

Geriatrics: The medical specialty dealing with treatment of the aged.

Gerontology: The study of the aged and the aging process.

Hedonism: The theory that states behavior is motivated by approach toward pleasure and avoidance of pain.

Heredity: The biological transmission of genetic characteristics from parents to offspring (biological, inborn, inherited, innate).

Hypotheses: Any statement, proposition or assumption that serves as a tentative explanation of certain facts.

Infancy: From the Latin infantia (inability to speak) the first year of life.

Insight: An act of apprehending or sensing intuitively the inner nature of something.

Instincts: Unlearned response characteristics of the members of a given species.

Intelligence: Cognitive processes involving abstraction, learning and dealing with novelty.

Life span: The actual duration of life of an individual organism from inception to death.

Machiavellianism: Description of a pattern behaviors including manipulation of others through deception and opportunism with increase of power and control as the central motive.

Memory: The mental functions of retaining information about stimulus, events, images, ideas, etc., after the original stimuli are no longer present.

Model: A representation that illustrates a pattern of relationships observed in data or in nature.

Psychodynamics: A label used freely for all those psychological systems and theories that emphasizes processes of change and development.

Self: An organized personalized whole.

Self-concept: One's concept of oneself in as complete and thorough a description as is possible for one to give.

Sensitive period: Period during which an organism is sensitive to particular forms of stimulus inputs.

Tantrum: A violent and uncontrolled display of anger.

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